The governance of value creation and capture in agribusiness value chains: A New Zealand case

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The management of value chains is increasingly gaining the interest of practitioners and academics. Central to the concept of the value chain are the components of a common vision, collaboration, value creation, and a heavy emphasis on the final consumer. This perspective is in conflict with many agribusiness chains, particularly in New Zealand, where the majority of agricultural exports are sold as commodities. As the country's legislation and economic plan has moved towards environmental protection and a shift from a 'volume to value' focus, farmers have been encouraged to become more entrepreneurial. In order for a supply chain to move from producing commodities to producing higher value products, chain upgrading takes place via improved technology, knowledge, and skills. Therefore, it is logical that when investigating a system as a whole, chain governance plays an important role in this process. However, this is still a relatively new area and there is a lack of research that adequately addresses the issue of chain wide governance and value chain upgrading.

Adopting a multi-paradigmic approach, this research is anchored in organisational, econmic, and behavioural theory in an attempt to explore end-to-end chain governance in the context of value creation and capture objectives. While the adoption of a multi-paradigm approach is not not unusual, perhaps unique to this research is the application of the Resource-Based View of the firm at a supply chain level. This study provides evidence that unique competencies and the resources deployed act as isolation mechanisms that all actors in the chain benefit from. Thus, providing some empirical support that the Resource-Based View of the firm is applicable at the chain level, rather than just a firm view. Further, this thesis proposes several value chain attributes important in the value process, and introduces a conceptual framework that illustrates the governance decision making that takes place within a chain in the pursuit of value creation and value capture goals. These attributes and conceptual framework form the basis of the research design and a multiple qualitative case study method was adopted. Five New Zealand agribusiness value chains were purposefully selected from across the agribusiness sector, and 34 interviews were conducted over a six month period.

The findings suggest that there are a range of value chain attributes important to creating and capturing value. These attributes highlighted the importance of the consumer, social mechanisms, strong leadership, and product innovation and quality. Notably, the findings suggest that values are a driver for value creation and capture, acting as a moral boundary for firms and the 'glue' for inter-organisational relationships. While the consumer is indeed a crucial consideration, values were the main driver for the development of the product offering and also entering into, and maintaining business relationships within the context of a supply chain network. In addition to value chain attributes, a number of chain governance typologies were identified. This was enabled via the interviewing of participants across various stages of a chain, rather than a single dyad. Indeed, all chains had unique governance structures, thus, showing that there is no 'no one size fits all' when considering value chain governance. However, all chains in this study were aligned through shared goals, visions, and values. Finally, this research contributes to the governance literature through the separation of power and leadership. This study proposes that the two terms are distinct and that each play a role in the management of a value chain. The results suggest that the main influencer of the chain is the leader (not necessarily the power broker), who provides cohesion in terms of identity, purpose, and coordination of members. The power holder of the chain then dictates the product quality specifications and exerts influence in the contract negotiations. Thus, highlighting the multi-faceted issue of value chain governance.

Keywords: Agribusiness value chains, supply chain, relationships, end-to-end chain governance, value creation, value capture, case study, qualitative.

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support a person could ever have, and without you this would not have been possible. I am truly grateful. Thanks for being there, love you twinny!!

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Chapter 1

Introduction

Supply chain management as a discipline has risen in prominence in recent years, due to drivers such as time and quality based competition, globalisation, sustainability issues, and environmental uncertainty. As a result, firms within the supply chain have been forced to become more flexible in their operations and relationships, and look beyond traditional boundaries to other firms in the supply chain for a competitive advantage (Mentzer et al., 2001). In this sense, firms become supply chain oriented as they focus on managing their upstream and downstream relationships in order to reduce transaction costs and increase the value of their product offering (Min, Mentzer, & Ladd, 2007).

Within the supply chain the final customer of the product exclusively defines what value is through their willingness to pay for a product (Brandenburger & Stuart, 1996). In this sense, the "…upstream market is derived from the original downstream market" (Slater & Narver, 1994, p. 22). Hence, the concept of value has gained increasing attention in more recent years, and places a great deal of importance on both the product offering and the management of relationships (Lindgreen & Wynstra, 2005). In order to maximise value delivery to the final consumer an alignment of value perceptions in each buyer/seller dyad throughout the supply chain is important. Indeed, this need for alignment between firms can be seen in the definition of supply chain management itself, and a summary of these may be found in Table 1-1.

Supply chain management definitions vary between authors, however, there is consensus that the concept centres on the integration of business processes and functions within and across firms in order to add value to products and services and meet the needs of the end customer. The way in which these needs are met and value delivered is the subject of much debate among academics. However, it is largely agreed that competitive supply chains have the following characteristics:

- A consumer centric focus, as the final customer is the arbiter of value (Porter, 1985).
- Seamless integration of business processes and functions that reduces waste and adds value (Fawcett, Ellram, & Ogden, 2007).
- Collaborative relationships that aid in creating value and delivering the product as effectively and efficiently as possible to the final consumer (CSCMP, 2016).

Table 1-1 A summary of supply chain management definitions

Author(s)	Definition
CSCMP (2016)	Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies.
Fawcett et al. (2007, p. 8)	The design and management of seamless, value-added processes across organisational boundaries through the integration of people and technological resources to meet the real needs of the end customer.
Mentzer et al. (2001, p. 18)	The systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole.
Lambert, Cooper, and Pagh (1998, p. 1)	The integration of key business processes from the end user through original suppliers that provides products, services, and information that adds value for customers and other stakeholders.
Spekman, Kamauff Jr, and Myhr (1998, p. 54)	Process for designing, developing, optimizing and managing the internal and external components of the supply system, including material supply, transforming materials and distributing finished products or services to customers.
Towill, Naim, and Wikner (1992, p. 3)	A supply chain is a system, the constituent parts of which include material suppliers, production facilities, distribution services and customers linked together via the feed-forward flow of materials and the feedback flow of information
Stevens (1989, p. 3)	The objective of managing the supply chain is to synchronise the requirements of the customer with the flow of material from the suppliers in order to effect a balance between what are often seen the conflicting goals of high customer service, low inventory investment and low unit cost.

Source: Author

Given that the discipline is a relatively new field of study (in comparison to other business disciplines such as economics), there are a number of emerging and evolving supply chain perspectives. One such view is the value chain, popularised by Porter (1985), that attempts to describe a firm's internal value-adding activities. Each firm along the supply chain becomes a vehicle for value added production, where value is sequentially added and generic strategies such as low cost production or product / market differentiation are suggested as a way to provide a competitive advantage in the market place. Critics of the value chain model, such as Normann and Ramirez (1993, 1994), argue that the unidirectional and sequential nature of the value chain fails to adequately account for the complex nature of business arrangements. Subsequent use of the term has evolved to recognise that firms are part of a complex system where the chain becomes all activities, functions, roles and organisations involved in the production, delivery and consumption of products from raw materials to final consumption and back again through reverse information flows (Hastings, Howieson, & Lawley, 2016; Kaplinsky, 2000).

Central to the concept is a common vision, collaboration, value creation and customer needs, with a heavy emphasis on the final consumer's role in the supply chain (Fearne, Martinez, & Dent, 2012). Within the literature this emphasis is often exaggerated in order to draw a distinction between supply chain management and value chain management. However, Holweg and Helo (2014) suggest that while the two terms have been treated as dichotomous within the literature, they are in fact complimentary to each other and in many respects the terms overlap. Further, as the modern definition of value chain recognises that the chain is a complex dynamic system, it is suggested that this is almost identical to the definition of supply chains (Choi, Dooley, & Rungtusanatham, 2001; Hearnshaw & Wilson, 2013). Hence, this research adopts a *value chain view*, and more specifically, an agribusiness value chain view. This is in part due to the importance of the industry in the New Zealand economy, and also because of the difficulty that agricultural production traditionally has in terms of value chain upgrading (Press, Arnould, Murray, & Strand, 2014). As such, agribusiness value chains based in New Zealand have been selected as the context for this research.

1.1 Research Rationale

From the beginning of European settlement New Zealand has had a focus on exports, and the decline of gold production in the 1870's led to the agricultural sector becoming the main contributor of exports (Sheppard, 1993). Early New Zealand agriculture benefited from being a colony of the United Kingdom, as the British Empire provided a stable export market. However, in 1961 the United Kingdom applied for entry to the European Economic Community (although didn't officially enter until 1973), forcing New Zealand to begin looking towards other markets (Saunders, Dalziel, Guenther, Saunders, & Rutherford, 2016). This led to the first economic shock during this period, followed by a sharp increase in fuel prices (Lambie, 2005). The government's solution to these economic challenges was to help farmers increase production (Peden, 2008).

Arguably, the greatest challenge to face the New Zealand agricultural sector was the government's economic reform of 1980's, that saw the country transition to one of the most open and unregulated economies in the world (Lambie, 2005). Between the years 1984 and 1993, the effective rate of assistance to agriculture fell from 123 percent to around three percent (Vitalis, 2007). These changes caused great uncertainty in the sector and a proportion of famers became bankrupt in the face of subsidy removal, falling land prices, and increased interest rates (Evans, Grimes, Wilkinson, & Teece, 1996). As a result, farmers were forced to diversify and intensify production, and there were large-scale changes to livestock numbers and food export values. An example of this may be seen in Table 1-2.

Table 1-2 The effect of economic reform on land use

Production Type	Pre-reform (1983-1984)	Post-reform (2004-2005)
Sheep	70 million	40 million
Dairy herds	16000	13000
Dairy cattle	2.3 million	5.3 million
Deer	0	2 million
Kiwi fruit export (USD)	42 million	405 million
Wine (USD)	Less than 10 million	125 million

Source: Vitalis (2007)

In New Zealand's economy today, primary sector exports are still a large part of annual gross domestic product, and in the year ended 2017, exports from agriculture accounted for 41 percent of total exports, as displayed in Figure 1-1. However, it is also noted that the majority of agricultural exports are commodities (Borkin, 2006). As environmental sustainability has become more important in recent years, so too has New Zealand legislation that protects the environment. Consequently, the intensification of the primary sector is unable to continue, and farmers have been encouraged to become more entrepreneurial. This shift is not only reflected in the legislation, but also in the country's economic plan with the tagline 'volume to value' (MBIE, n.d.-b).

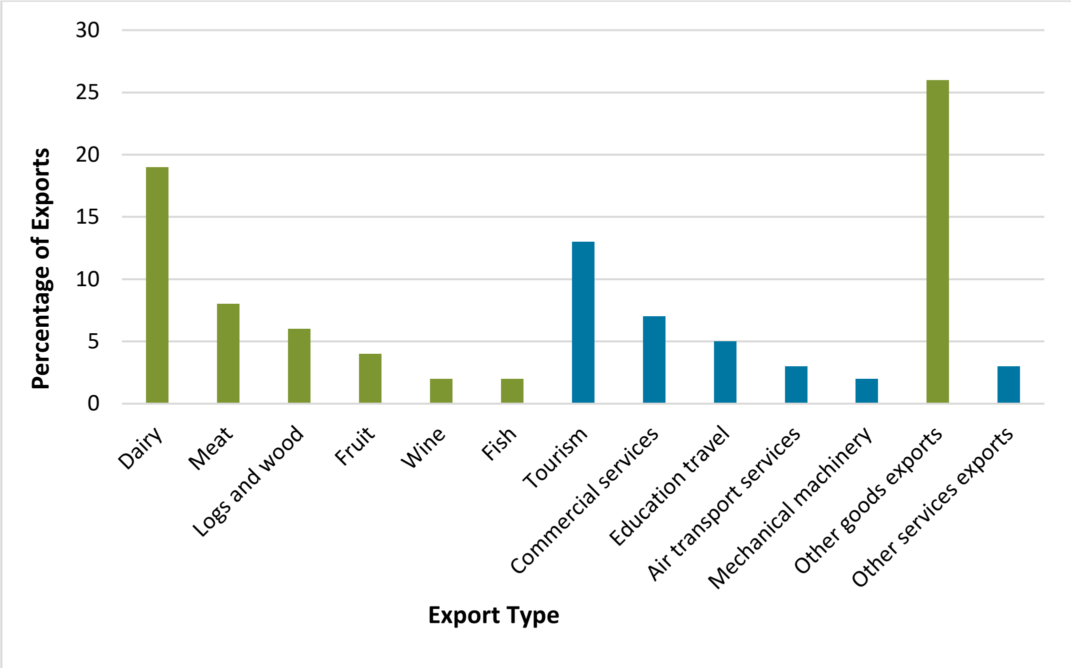

Figure 1-1 New Zealand goods and services export profile, year ended March 2017
Source: MFAT (2018)

In 2012 the New Zealand Ministry for Primary Industries set a primary sector export target of $64 billion by 2025, double the previous target (Underhill, 2016). The 2016 situation outlook report for the industry stated

> *"From 2012 to our estimate for 2016, the nominal export value grew by an average of 3.3 percent per year. In order to reach our real export target by 2025, primary sector exports would now need to grow by an average of 9.5 percent per year from 2016 onwards" (MPI, 2016, p. 6).*

The Governments export target is particularly ambitious given the current structure of the industry and the propensity of agricultural products to be commodities. However, while there are many commodity producers within the industry, there are also a number of chains that produce value-added products, and the Government has allocated resources for scientific research in this area through such important funds as the National Science Challenge (MBIE, n.d.-a). It is these chains that this research is focused on.

In order for a supply chain to move from producing commodities to producing higher value products, chain upgrading takes place via improved technology, knowledge, and skills (Gereffi, Humphrey, & Sturgeon, 2005). Therefore, it is logical that when looking at the system as a whole, chain governance plays an important role in this process. However, this is still a relatively new area and there is a shortage of research that adequately addresses the issue of chain wide governance (Matopoulos, Barros, & van der Vorst, 2015; Provan & Kenis, 2008) and value chain upgrading (Gereffi & Lee, 2016). Further, this issue requires additional investigation when examining New Zealand supply chains. Much of the value chain upgrading literature focuses on developing countries close to the market (Fernandez-Stark, Bamber, & Gereffi, 2011; Kaplinsky, Memedovic, Morris, & Readman, 2003; Trienekens, 2011). However, New Zealand is a developed country with a comparative advantage in agriculture whilst being geographically isolated, a particularly pertinent issue when considering food product perishability and time to market.

Given the sparseness of research in this field, the premise of this study is that to aid commodity producers in upgrading their value chains in a developed economy, it is important to understand how high value chains operate, from consumer to producer. Therefore, the purpose of this research is to gain a greater understanding of New Zealand land-based value chains by investigating chain governance and those attributes of value chains that allow value to be created and captured and translated through the chain upstream to producers. This leads to the main research questions as follows.

1.1.1 **Research Questions**

Firms (and therefore supply chains) exist to produce and deliver a product of value to the final consumer (Slater, 1997). Therefore, maximising value delivery is important as value acts as a precursor to satisfaction, which leads to brand loyalty, or repeat purchase decisions (Sánchez, Callarisa, Rodríguez, & Moliner, 2006). A view that the "…value offering [is] created by the firm for the customer [and] is defined in the marketplace by the customer" offers a holistic view of value (Ngo & O'Cass, 2010, p. 498). However, there are multiple perceptions of value within the literature, and the multitude of definitions make the term ambiguous (Grönroos & Voima, 2013; Sánchez-Fernández & Iniesta-Bonillo, 2007). Therefore, it is important to understand how value chain actors perceive value creation and capture both within the firm and exchange relationships. Therefore, an important research question to address is:

RQ1. How is value created and captured within agribusiness firms and supply chains?

There is a large body of literature that explores issues of management. However, the area of chain wide governance is somewhat understudied (Provan, Fish, & Sydow, 2007). Further, the supply chain literature has struggled to adequately address the issue of value chain upgrading (Gereffi & Lee, 2016). This research attempts to address this research gap through an investigation of those chains in the agribusiness industry that are able to capture premiums in-market, but also ensure that value is passed along the chain back upstream to producers. This thesis aims to examine the mechanisms for value creation and capture in these systems in order to examine the issue of value in more depth. Hence, the following is question is posed:

RQ2. What is the role of governance in the value creation and capture of agribusiness value chains?

Finally, this study is housed within an agribusiness context as organisations in the sector have difficulty in moving away from commodity production into value added production. This is often due to the hold of difficult to overcome ideologies and attitudes, structural legacies, as well as entrenched processes and performance measures (Fawcett & Cooper, 2001; Press et al., 2014). Hence, examining firms that have managed to break out of this 'commodity cycle' will provide some valuable insights. Based on this knowledge gap, this research attempts to address the following question:

RQ3. What are the key attributes of high value agribusiness value chains?

Following the development of the research questions, it is pertinent to provide more context to the area of agribusiness value chains in order to provide a clear direction for the remainder of the study.

1.2 Agribusiness Value Chains

The literature has much to say about value chains, and similarly provides many definitions. For the purpose of this research, the following definition is adopted:

> *"…the full range of activities which are required to bring a product or service from conception, through to the intermediary phases of production, …delivery to final consumers, and final disposal after use" (Kaplinsky, 2000, p. 121).*

In order to analyse these chains, it is suggested that there are three important components to note: (1) value chain's are repositories for rent, (2) chains arise from systemic as opposed to point efficiency, and (3) they involve some degree of chain wide 'governance' (Kaplinsky, 2000). The first of these components refers to barriers to entry and rent, whereby actors capture supernormal profits through the implementation and exploitation of isolation mechanisms[1] that act as barriers to entry for competitors (Lepak et al., 2007). A shift from point to systemic efficiency denotes the change in the business environment where competition is no longer concentrated between firms, but rather between supply chains themselves (Grunert et al., 2005; Spekman et al., 1998). This highlights the need for the division of labour to be effectively managed so that chains are efficiently coordinated, and hence, governance is a central concept within the value chain literature (Maglaras, Bourlakis, & Fotopoulos, 2015; Pilbeam, Alvarez, & Wilson, 2012; Sturgeon, Van Biesebroeck, & Gereffi, 2008). Yet, there is a scarcity of research that deals explicitly with attempting to determine the forms of chain wide governance as opposed to bilateral or dyadic buyer / seller governance.

A changing business environment has seen a shift in the way that firms conduct business. Competition now exists at the system, rather than the firm level, and consumers are increasingly demanding higher quality, differentiated products (Salazar-Ordóñez, Rodríguez-Entrena, Cabrera, & Henseler, 2018). In primary production, the key trends impacting value chains are the increasing complexity of public and private standards, globalisation, country of origin production, and the strong growth of consumer retailing for developing countries (Jraisat, 2016). Alternatively, these trends may be viewed as macro and micro-environmental factors affecting the agricultural industry and its propensity for chain members to collaborate, including: globalisation and industry consolidation, changing consumer demands, changing legislation, industry structure, and product features (Matopoulos, Vlachopoulou, Manthou, & Manos, 2007). These changes have resulted in a move away from commodity production, to differentiated value-added production, driving a shift towards closer coordination of land-based value chain's (Hobbs & Young, 2000).

Indeed, changing consumer demands has driven changes toward a more value-added production model and this has resulted in a greater focus on branding as a way of emotionally connecting the consumer to the product through avenues such as story-telling and labelling (Papadatos, 2006; Woodside, Sood, & Miller, 2008). Consumers develop loyalties to brands based upon their utility or 'added value' and thus, brands are valuable assets to firms (Baalbaki & Guzmán, 2016). Further, brand value co-creation, that takes place between chain actors, the consumer, and other stakeholders, provides differentiated and meaningful brand experiences for the final consumer. Therefore, "…the firms' capability to create long-term value comes not only from ownership of

[1] Isolating mechanism: "…any knowledge, physical, or legal barrier that may prevent replication of the value-creating new task, product, or service by a competitor" (Lepak, Smith, & Taylor, 2007, p. 188). See Chapter 2, Section 2.3.2 for more detail.

successful brands, but also from having the ability to consistently deliver the experience they promise" (Helm & Jones, 2010, p. 579).

While branding creates value, it also presents some challenges for agribusiness value chains as they are constrained by natural environmental factors and specifically, ensuring continuity of supply that meets quality specifications. Indeed, food systems are susceptible to a number of shocks such as those "…environmental, of natural making, accidental, malicious or borne out of ignorance" (Leat & Revoredo-Giha, 2013, p. 219). Therefore, chains need to be resilient to shocks (Christopher & Peck, 2004) and also adaptable in order to respond to disruptions, disasters, changes in business imperatives, and economic realities (Pettit, Fiskel, & Croxton, 2010). Hence, governance decisions play a critical role in the ability of the chain to achieve this.

Governance decisions impact the efficiency and effectiveness of the delivery of value to the final consumer (Kähkönen & Lintukangas, 2012). At the dyadic level, while there is a growing emphasis on co-creation and collaborative partnerships between firms (Heide & John, 1990), there is still the legacy of local (firm level) as opposed to chain wide optimisation within the agricultural industry. Indeed, network governance based on systems thinking is essential to move from an uncoordinated 'heap' to an interlinked and well-coordinated whole value system (Kühne, Gellynck, & Weaver, 2010). In line with this, Jraisat (2016, p. 353) argues as:

> *"…the firms exchange benefits (e.g. resources and information) and change the business link situation (e.g. transaction activities and bonds) toward each other and other firms. These firms (actors of buyers and sellers) adopt strategic networking to improve their value added and overlay their relationships socially to build firm performance".*

Agribusiness value chains are often characterised by the presence of a lead firm governance structure, whereby one firm (generally located downstream) acts as a gatekeeper to market (Konefal, Mascarenhas, & Hatanaka, 2005). In food supply chains, this is often the retail supermarkets who exercise considerable influence on the consumers and the rest of the upstream agricultural supply chains (Brito & Miguel, 2017). In commodity chains, suppliers such as farmers, typically hold little power as market signals are poorly communicated upstream by retailers who control data on consumer segment preferences, resulting in information asymmetry and power imbalances (Ponte & Sturgeon, 2014; Vlachos, 2014). However, in the case of differentiated chain's, the lead organisation may not be the retailer and better coordination across the chain is the result of intelligence gathering by the lead firm, information sharing and responsiveness by chain members (Matsuno, Mentzer, & Rentz, 2005). Consequently, there is a possibility for greater value creation and capture by those who actually create the value, rather than surrendering this to large and powerful actors downstream.

Large retailers, such as supermarkets, typically hold high levels of power over suppliers due to their scale, and may tightly control specifications using different sources of power (Brito & Miguel, 2017; Ponte & Sturgeon, 2014). Hunt and Nevin (1974) distinguished two main sources of power, 'coercive' and 'non-coercive' forms of power (reward, expertise, legitimacy and referent), and Nyaga, Lynch, Marshall, and Ambrose (2013) suggest that the use of power will affect the adaptive and collaborative behaviour of partners as there is greater potential for opportunistic behaviour by the more powerful partner. However, Brito and Miguel (2017) caution the use of this perspective as empirical work in this area is still not yet conclusive. Moreover, the research on power dynamics and opportunism is focused on the dyadic exchange level, and despite some more recent research, the end-to-end chain governance literature still remains relatively sparse (Trienekens, Van Velzen, Lees, Saunders, & Pascucci, 2017). For these reasons, the current research focuses on the agribusiness sector and the governance of value chains in order to develop a greater understanding of end-to-end governance. Additionally, given the exploratory nature of this research, a qualitative multiple case study approach is adopted. This allows data to be collected from chains across the industry, and to gain an understanding of the key drivers of value creation and capture. Further, a case study method enables the asking of 'how and 'why' questions, as well as the flexibility of a semi-structured interview (Yin, 2018).

1.3 Research Contributions

This research aims to provide several contributions to the literature. The first of these is a theoretical contribution. End-to-end chain governance has not been widely studied (Trienekens, et. al., 2017), and much of the current research investigates value chains from the dyadic or even triadic perspective (Gellynck & Molnár, 2009). A theoretical decision pathway framework is developed, allowing the chain to be investigated at the internal, dyadic, and chain level. This is implemented using a multiple case-study approach to explore value chains across multiple tiers through semi-structured interviews. This adds to the body of knowledge of value chains, and provides insights into how chain wide governance affects value creation and value capture efforts.

This study contributes to the ongoing discussion of value creation and value capture, while adopting a multi-paradigm theoretical approach. Despite the heavy use of the term 'value' in business literature, there is a lack of research that investigates how the supply chain responds to the value perceptions of the customer with regards to value creation and value capture efforts. Additionally, the concept is somewhat overused leading researchers to note its conceptual ambiguity (Wagner, Eggert, & Lindemann, 2010). This research investigates both value creation and value capture in order to develop a holistic understanding of the concept. In addition, this study adopts a multi-paradigm approach. The use of singular theory is useful when examining specific issues, and each theory provides some explanation of exchange relationships. However, this research takes both a multi-paradigm and multi-tier approach to examine the governance of value chains, and it is not until these are explored holistically, that a more realistic view of value chain governance emerges.

Further, this study contributes to the Resource Based View of the firm. Some research has argued that purchasing, and by extension supply chain management, could not logically be a source of competitive advantage (Ramsay, 2001). However, more recently scholars have defended the use of this paradigm within supply chain management, suggesting that supply chains vary in competencies, and therefore competition and competitive advantage are not limited specifically to firms, but extend to the system as a whole (Barney, 2012; Hunt & Davis, 2008, 2012; Priem & Swink, 2012). This study provides evidence that the unique competencies and resources deployed provide benefits to all chain actors. Thus, providing some empirical support for the argument that Resource-Based View can be applicable at the supply chain level.

Practically, this research also has value to managers and practitioners. Indeed, this research has used five examplars of high value, value chains as real world examples of how value chains are able to create and capture value. One of the outcomes of this is the identifications of several value chain attributes that are confirmed as crucial for value creation and value capture efforts. These attributes may be used by managers in to identify areas that could benefit from more managerial attention. A second outcome of this is the identification of pathways that chains may take in creating and capturing value – these pathways could be investigated by managers in developing supply chain strategy. A further practical contribution is the inclusion of a managerial guide (see Appendix B) that will assist managers in understanding how these key attributes work, and some key areas to examine to assist in the value upgrading process.

1.4 Thesis Structure

The thesis is structured as follows; Chapter two introduces the theoretical background of this research through a review of relevant extant literature. The review focuses on those theoretical paradigms important to exchange relationships and chain activities. These form the foundation of this research and are categorised as economic, organisational, and behavioural theories. These are later used in the research design of the study. Following this, the review turns to investigating the role of value creation and capture in the governance of value chains. This is summarised by a conceptual map of value creation and capture in a system, highlighting value drivers, enablers, value appropriation mediators, and value leakage.

Chapter three acts an extension of the literature review to introduce the research framework for the study. Important value chain attributes for value creation and value capture are also derived from the literature and are introduced. For each of these attributes, specific propositions that underpin the current study are then developed. These are purposefully focused on behavioural aspects, rather than detailed operational activities in an effort to identify attributes that could be generalised to value chains in any industry. Following this, the chapter moves to the development of the theoretical model used to guide the study. The framework is sequentially developed to create a decision-making framework, with theoretical foundations described for both internal and inter-organisational decision making. The aim is to develop a framework that supports multiple units of analysis; the dyadic relationship, and the chain wide system.

Chapter four presents the methodology of the study. The research seeks to answer 'how' and 'why' questions. Therefore, a case study methodology is deemed the most appropriate research method to address the needs of this study. Further, it is considered that the research is exploratory in nature as one of the aims is to gain an overall understanding of value chains in the agribusiness industry. As such, a multiple case approach is adopted, utilising semi-structured interviews to explore five value chains across a range of primary and secondary sectors.

Chapter five and Chapter six present the detailed results of the case study research. 34 interviews were conducted over a six month period for the five unique chain cases, and these were: (1) horticultural; (2) boutique meat; (3) non-perishable land-based product; (4) seafood; and (5) wine. Chapter five presents an overview of each of the cases, noting the case context and attributes. The following Chapter six provides a cross-case comparison. This investigates the attributes that are defined in chapter three, and identifies a further two attributes. Finally, the governance typologies of the cases are examined and five structures emerge from this analysis: (1) market oriented governance; (2) values driven governance (distributed); (3) values driven governance (centralised); (4) virtual governance; and (5) market governance.

Finally, Chapter seven presents a discussion of the key findings and conclusions for the research. The research questions and framework are revisited before summarising the key findings. The results of the discussion of the attributes highlighted in chapter 5 may be distilled down into four key areas: (1) caring for the consumer; (2) innovation and quality; (3) governance; and (4) values as opposed to value. This also lends itself to re-development of the propositions in order to encourage future research in this area. Finally, the contributions, limitations and directions for future research are highlighted.

Chapter 2

Literature Review

2.1 Introduction

Supply chain management stresses the integration of processes and functions across all firms in the chain to create and deliver value to the end customer (Fawcett et al., 2007; Lambert et al., 1998; McAdam & McCormack, 2001). In this sense, the final consumer becomes the arbiter of value, and all firm activities should be motivated to add value to the final product in order to produce satisfaction (Porter, 1985). However, this notion is complicated somewhat when the seemingly simple question of 'what is value?' is posed. This chapter aims to review the literature surrounding the theories and concept of value to develop a greater understanding of the subject, whilst also exploring the concept within exchange frameworks.

Exchange relationships mainly occur because of specialisation, scarcity, and the geo-spatial distance between the point of production and the point of consumption (Coase, 1937; Cook, 1977). The limitations of these on the firm forces interdependencies between organisations. Therefore, this chapter builds upon the understanding of value to investigate governance frameworks important to value creation and capture at the inter-organisational level. Along this line, three main groups of theories have been identified. Firstly, *organisational theories* investigates how firms may gain a competitive advantage, and the rationale behind firms forming exchange relationships. Secondly, *economic theories* assumes the rationality of actors and perpetuates the notion that market driven forces (equilibrium) form the basis of exchange. Thirdly, *behavioural theories* use social phenomena to focus on the social interactions of individuals within firms. Hence, the three groups of theories complement each other as both economic and sociological aspects are present in real world exchange relationships.

The key objective of this chapter is to provide a theoretical context for this study by exploring the literature surrounding value. In order to do this it is necessary to investigate the interaction of different theoretical paradigms in the realm of exchange between firms, and identify how these paradigms may be operationalised within a value chain in the agribusiness industry. An initial literature search around governance and value creation and capture highlighted that no single theoretical paradigm is fully able to explain these concepts. This presents an issue in terms of developing theoretical assumptions to guide the research. In an effort to address this issue, it is necessary to adopt a multi-theoretical lens (Ritzer, 1990).

Meta-triangulation is a tool that aids in the process of meta-theorising. In this study, the academic databases of ABI/INFORM, ScienceDirect, and Scopus were used, as well as academic books, and publically available government resources. Adopting this methodological approach to conduct a literature review allows the researcher to investigate the boundaries and overlaps between paradigms to develop a greater understanding of the phenomena of interest and extend the scope, relevance and creativity of organisational theory (Webster & Watson, 2002). Lewis and Grimes (1999) highlight three different forms of multi-paradigm inquiry. First, *multi-paradigm reviews* investigate the assumptions of researchers in understanding organisational phenomena. Second, *multi-paradigm research* seeks to empirically apply divergent theoretical lenses in order to support the different representations of a complex phenomenon. Third, *metaparadigm theory building* allows the researcher to manage their bounded rationality, in order to "…explore patterns that span conflicting understandings" (p. 675).

Adopting this approach in the study will aid in gaining an understanding of a number of complex governance paradigms that exist within the extant literature. In the current piece of research, the paradigms of Transaction Cost economics, Agency theory, the Resource-Based View of the firm, and behavioural theories such as Relational Exchange Theory and Network Theory emerged as important domains from the literature and hence, are reviewed. This exploration is used as a foundation in the development of a multi-paradigm framework that is derived and presented in Chapter 3. In an attempt to achieve this, this chapter is set out as follows. Section 2.2 explores the literature around the governance of value chains from a theoretical perspective. This section attempts to integrate the learnings developed from the theoretical body of research to explore how governance and management decisions are operationalised in practice. Following this, Section 2.3 investigates the research surrounding value creation and value capture in the context of supply chains, with a particular focus on the definitional aspects of the concepts. This section also highlights the importance of inter-organisational interactions and summarises the value creation and capture aspects of a system within a conceptual map.

2.2 Theoretical Foundation for Value Chain Governance

Before exploring value creation and capture of value chains it is important to develop the theoretical foundations that will guide the study. As noted in Chapter 1, Section 1.1, there are three components needed in analysing value chains. In this section of the literature review these components are explored through the lens of governance and three groups of theory are explained: (1) organisational theory, (2) economic theory, and (3) behavioural theory. These paradigms provide a base to investigate the governance of a system and the logic of this is shown in Figure 2-1. More specifically, organisational theory in the form of the Resource-Based View of the firm provides the logic of how firms may gain competitive advantage in the marketplace by leveraging resources and capabilities. However, as critics of the paradigm argue there are several shortcomings, especially in the overlooking of the opportunity for rent generation through inter-organisational exchange (Kembro, Selviaridis, & Näslund, 2014; Lavie, 2006). Therefore, it is important to also look beyond the firm to exchange relationships.

Economic theory is useful in exploring exchange relationships from a rational viewpoint, and suggests that market driven forces form the basis of exchange (Eisenhardt, 1989; Williamson, 1985). The emphasis here is on efficient market structures and contracts. As a multi-disciplinary theory, Transaction Cost economics (TCE) concentrates on efficient market structures, and provides a way to explain relationship types from arms-length through to vertical integration (Williamson, 1979). However, this paradigms concentration on reducing opportunism through organisational structure fails to account for other aspects of relationships, such as goal alignment. Therefore, Agency theory (AT) offers a complimentary addition. The focus of this theory is the development of the most efficient contract and incentive structure to govern the principal-agent relationship (Fayezi, O'Loughlin, & Zutshi, 2012). The issue with using economic theory alone as a foundation for this research is that actors are viewed as very rational, self-interested, and structured. This is an overly simplified perspective on exchange behaviour and fails to take into account the social norms and nuances that underpin and emerge out of relationships. To address this, exchange behavioural theory is also explored.

Behavioural theory attempts to explain relationships from a sociological viewpoint. Where economic theory investigates exchange structure and contracts, behavioural theory explores social norms and the patterns and expectations that emerge from reciprocity (Morgan & Hunt, 1994). Specifically, Relational Exchange theory is grounded in the rules and norms of exchange, resources exchanged, and relationships (Cropanzano & Mitchell, 2005). While this is helpful in exploring dyadic relationships, the shift away from the market structures of TCE, to the relationship as the unit of analysis limits the paradigms ability to examine the system as a whole. In contrast, Network theory roots are in both mathematics and sociological constructs and offer a way to examine the governance of value chains. The premise being that networks emerge out of social mechanisms and may be contractually mandated (Alvarez, Pilbeam, & Wilding, 2010; Provan & Kenis, 2008).

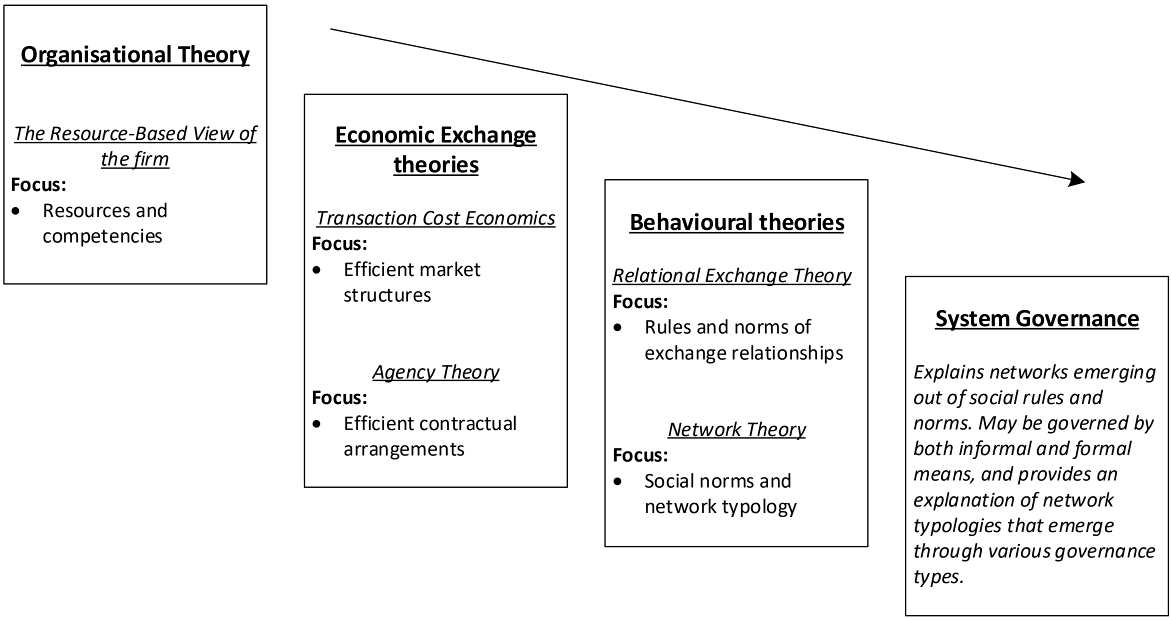

Figure 2-1 Logic flow of the study's theoretical foundation
Source: Author

When examined individually, each theory provides some explanation of relationships. However, it is not until these are explored holistically, that a more realistic view of value chain governance emerges. Hence, the following sections investigate each of these theoretical paradigms before moving to review the concept of value and the operationalisation of this within value chains.

2.2.1 The Resource-based View of the Firm

The Resource-Based View (RBV) of the firm belongs to the strategic management and competitive advantage streams of literature, and builds upon the work of pioneers such as Penrose (1959) to examine how firms can create a sustainable competitive advantage. Developed as a complementary view to industrial organisation, the RBV emerged as an official term in 1984 with Wernerfelt's article "A resource-based view of the firm". The paradigm investigates how a firm's resources and capabilities can be exploited to create value and gain a competitive advantage in the market place (Barney, 1991; Kraaijenbrink, Spender, & Groen, 2010). Wernerfelt (1984) defined resources as the strength and weaknesses of a firm, or more specifically, those "…assets which are tied semi-permanently to the firm" (p. 172). These may be tangible/physical in nature, or intangible, such as employee skills or trade secrets. In contrast, capabilities are the processes that the firm is able to perform, based upon the resources and routines that it holds (Hart & Dowell, 2011). Ngo and O'Cass (2009, p. 47) argue that capabilities are "…the glue that combines, develops, and transforms the resources to create value offerings for customers".

The framework rests on the assumption that firm performance differentials are due to firm heterogeneity (Dyer & Singh, 1998). In order for an organisation to achieve super normal profits or a sustained competitive advantage, Barney (1991) suggests that the resources a firm owns must have the following four characteristics. First, it must be valuable in that it is able to exploit opportunities and/or disarm threats, and secondly be rare amongst competitors, or potential competitors. Third, resource must also be imperfectly imitable or difficult to copy. Finally, the firm must be organised and structured to be able capture value from exploitation. In other words, if a resource is valuable, but not rare or imperfect imitable, then it is unable to create value. This can only be achieved through the exploitation and leveraging of the resource in conjunction with firm capabilities and when the resource lacks one of these attributes the organisation cannot expect to gain a sustained competitive advantage.

Despite the popularity of the paradigm, there are several authors whom point to deficits within the framework. For example, Priem and Swink (2012) argue that the theory suffers from a broad and imprecise definition of what is meant by 'resource'. Sirmon, Hitt, and Ireland (2007) suggest that RBV overlooks of the role of dynamism, environmental contingencies, and managers' roles. Further, other researchers argue that the opportunity for rent generation through inter-organisational activities is often overlooked due to the internal focus of firm activities (Kembro et al., 2014; Lavie, 2006). Indeed, many theorists have held onto the narrow view of neoclassical economic rationality and consequently, have stunted the opportunity for progress in more recent times (Kraaijenbrink et al., 2010).

However, this is not to say that researchers are unaware of these issues. For example, one criticism of the RBV of the firm is that while the perspective recognises the role of isolating mechanisms, it does not attempt to explain the nature of these. Teece, Pisano, and Shuen (1997) addressed this issue by focusing on the role of dynamic capabilities, that may be defined as "…the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (p. 516). The authors argue that the competitive advantage of a firm lay with its managerial and organisational processes, and that these are fashioned by its asset position and decisions available due to path dependence. Furthermore, competences may only provide a competitive advantage if they are based on unique and difficult to imitate routines, skills and complementary assets. As such, authors are now arguing that the idea of *sustainable* competitive advantage is no longer achievable and that firms can, at best, hope for some form of *temporary* competitive advantage (McGrath, 2013; Sirmon, Hitt, Arregle, & Campbell, 2010).

One of the debates among earlier management scholars was the relative importance of a firms internal capabilities versus external environmental factors. Hart (1995, p. 986) stated that the RBV perspective "…systematically ignores the constraints imposed by the biophysical (natural) environment". In response to this, the author proposed Natural Resource-Based View of the firm to consider pollution prevention, product stewardship, and sustainable development. Arguably, this was an important extension of the RBV in a time period where environmental considerations were only beginning to come to the forefront of managerial science. Further, the natural resource perspective is of particular interest for agricultural supply chains, as activities are heavily influenced and constrained by environmental considerations. Interestingly however, Matopoulos et al. (2015) found that while this perspective investigates resources from an environmental impact standpoint, there is a lack of research that explores how logistics and/or supply chain decisions affect agri-food supply chain configurations, taking into account resource scarcity and depletion.

Earlier research in the strategic management area argued that purchasing, and by extension supply chain management, could not logically be a source of competitive advantage (Ramsay, 2001). However, more recently scholars have defended the use of the RBV within supply chain management (Barney, 2012; Hunt & Davis, 2008; Priem & Swink, 2012). The proponents of this view argue that supply chains vary in competencies, and therefore competition and competitive advantage are not limited specifically to firms, but extend to the system as a whole (Hunt & Davis, 2012). Examples of this may be found in areas of research such as unique assets (Holcomb & Hitt, 2007), value co-creation (Kohtamäki & Rajala, 2016), information sharing (Kembro et al., 2014), supply chain integration (Wang & Wei, 2007), and consumer focused strategies for value creation (Priem, 2007). Thus, there is an acknowledgement of an inter-firm view of value creation. This extension lends itself to the logic that competition does not exist between firms but rather between supply chains (Fearne et al., 2012; Spekman et al., 1998), and so the supply chain as a whole leverages various resources and capabilities to gain a sustainable competitive advantage.

Whilst RBV has a number of shortcomings and cannot logically be used in isolation to understand the creation of value within a supply chain, it does offer an explanation for how firms combine resources to attain a competitive advantage. Additionally, the more recent extensions of this paradigm have allowed the RBV to take the environment into consideration, and apply the logic to the entire value chain. In terms of governance, this lens offers an explanation for the way resources are organised and deployed within a value chain, and when resources are deployed at the chain level exchange between firms take place. Therefore, the next consideration is how the interactions between firms are governed.

2.2.2 Economic Theory

The branch of economic theory relevant to this study is concerned with determining the correct form of governance for each type of exchange. The emphasis being efficient market structures and contracts in order to reduce transaction costs within the chain. Indeed, governance under this school concentrates on asymmetric information, bounded rationality, exchange contracts, power, and other contributing factors in an attempt to mitigate the assumed universal opportunism of partners. This section of the literature review investigates the paradigms of Transaction Cost economics and Agency theory, and highlights their place within exchange and the governance of supply chains.

2.2.2.1 Transaction Cost Economics

Transaction Cost economics (TCE) is a multi-disciplinary theory that integrates elements of contract law, economics, and organisational theory. It focuses on the use of efficient market structures from arms-length through to vertical integration to govern exchange between organisations (Williamson, 1985), and is based on the behavioural assumptions of bounded rationality and opportunism. Bounded rationality refers to the intended rationality of an individual within the boundary of cognitive competence. Decisions are intentionally rational but limited by information received, cognitive ability, and time (Maher, 1997). In contrast, opportunism suggests that if the situation presents itself, agents will act in their own best interests every time, regardless of the harm caused to others. Williamson (1985, p. 47) defines this opportunistic behaviour as “incomplete or distorted disclosure of information, especially to calculated efforts to mislead, distort, disguise, obfuscate, or otherwise confuse", or "self-interest with guile". Vertical integration and complete contracting have been suggested as safeguards against these risks. However, Maher (1997) warns that vertical integration may discourage competition and limit outside procurement, whereas environmental uncertainty makes complete contracts cost prohibitive to develop. Consequently, many relationships within the supply chain are hybrids of market exchange and vertical hierarchies and contracts are, by nature 'incomplete' (Halldórsson, Kotzab, Mikkola, & Skjøtt-Larsen, 2007).

The key dimension of TCE is asset specificity, and in the absence of this market-based exchange is generally preferred as bounded rationality is economised and the competitive marketplace regulates itself in regards to opportunism (Williamson, 1985). However, when parties commit to relationship specific investments, asset specificity is introduced and the partners become exposed to the 'holdup' problem, whereby an opportunistic partner is able to extract quasi-rents from the other in a forced re-negotiation (Klein, Crawford, & Alchian, 1978). The need to protect oneself against these behaviours within the context of uncertainty and asset specificity tends to raise both *ex-ante* and *ex-post* transaction costs in the form of ongoing negotiations, safeguarding, and monitoring costs (Grover & Malhotra, 2003).

TCE also deals with the issue of value in terms of transaction costs and efficient governance structures. A review of the extant literature has highlighted a number of ways that the theory has been used to investigate value. First, research has attempted to extend the framework to the chain level. Building upon the seminal work of Williamson (1975, 1979, 1985) and his investigation of contractual solutions, recent research investigates how inter-organisational governance can create value in the supply chain context. Wang and Wei (2007) adopt a hybrid view of relationships and move outside traditional contracting to investigate the behavioural governance mechanisms of relational governance and information technology in value creation, arguing that supply chains should not only be cost efficient, but also adaptable to managing transitions such as changing marketing conditions. Alternatively, Wever, Wognum, Trienekens, and Omta (2012) suggest that contracts are able to manage the interdependencies of the supply chain outside of the dyad, such as the over-ordering of inventory when customers expect there to be a shortage in supply, and hence, improve efficiency.

Other research utilises TCE as a theoretical foundation to address supply chain coordination. Hobbs and Young (2000) and Vlachos (2014) both suggest that as agricultural food chains move away from producing commodities towards market oriented differentiated products, they tend to move towards vertical integration. When this occurs, the focus of transactions becomes the long-term, as opposed to the immediate or short-term horizons (Ketchen & Hult, 2007). In this sense, opportunistic behaviour by parties often has negative long-term implications, such as eventual economic exclusion from the marketplace. Consequently, there is incentive for firms to build close collaborative relationships with partners.

TCE's focus on organisational structure in order to reduce opportunism offers a narrow view of exchange (offering either arms-length or internalisation as the two governance options), and fails to capture the more intricate workings of an exchange transaction, such as alignment of goals between parties and collaboration. Hence, the review turns next to AT in order to explore the impact of contractual arrangements on the creation of value.

2.2.2.2 **Agency Theory**

In agency relationships the principal delegates work for the agent (Eisenhardt, 1989). Where the partners have differing attitudes towards risk, an agency problem arises, and Eisenhardt (1989, p. 58) suggests this "…occurs when cooperating parties have different goals and division of labour". With the acceptance that self-interest and profit maximisation goals are present, the central focus of AT is to develop the most efficient contract to incentivise and govern the principal-agent relationship (Fayezi et al., 2012). In this sense, while the principal will seek to minimise the costs associated with the agent and transfer risks, the agent aims to maximise rewards and reduce risks, whilst simultaneously minimising the power of the principal (Lassar & Kerr, 1996).

This theoretical perspective has developed along two streams of research. The first of these is the principal-agent view, that focuses on governance mechanisms to control and regulate principal-agent differences. Self-interest, bounded rationality, and risk aversion of the agent being the major determinants of mathematical models for building relationships (Eisenhardt, 1989). The main focus of this is contract design, and Zu and Kaynak (2012) highlight the use of a mix of behavioural and outcome based contracts to manage agency problems and risk. Hence, the principal-agent stream is useful for explaining the non-rational behaviours of principals and agents, such as refusing to share information, or trust issues that are typically found in inter-organisational contracting and relationships.

The second stream of AT, the positivist view, has evolved to help compensate for the short comings of the principal-agent stream and examines the behaviour of principals and agents, such as how relationships develop and also how they can be managed (Fayezi et al., 2012). It investigates situations where goal conflicts arise and is useful for examining and reducing issues around the separation of control and ownership in partnerships to offer solutions for more effective management (Halldórsson & Skjøtt-Larsen, 2006). Consequently, this stream of AT is mostly concerned with employment contracts, such as between owners and managers of large public organisations (Eisenhardt, 1989). In this sense, while the two streams have an individual focus, they are complementary to each other:

> *"Positivist theory identifies various contract alternatives, and principal-agent theory indicated which contract is the most efficient under varying levels of outcome uncertainty, risk aversion, information, and other variables" (Eisenhardt, 1989, p. 60).*

Based upon the aforementioned streams of literature, this review now highlights key applications of AT and value creation within Supply chain management. The first is the use contracting (principal-agent), whereby certain conditions or situations will result in different types of contracts being preferred (Skjøtt-Larsen, Schary, Mikkola, & Kotzab, 2007). When outcome uncertainty is low and measurability is high, *outcome based* contracts are preferable. However, *behaviour based* contracts are preferable when outcome uncertainty is high and the agent is highly risk averse; task programmability is high and monitoring systems are efficient, and; the principal and agent are in a long-term relationship (Eisenhardt, 1989; Skjøtt-Larsen et al., 2007). For example, Zu and Kaynak (2012) examine the contract choice in a quality management setting, while Starbird (2001) examines the effect of rewards, penalties, and inspection policies in behavioural contracts. This view perceives value in the traditional sense; value is achieved through efficiencies leading to reduced costs or, product improvements that result in greater profitability (Garvin, 1984; Williamson, 1975). However, while researchers commonly use one perspective, this is not to say that the agency problem is not examined as a holistic theoretical concept. For example, Halldórsson and Skjøtt-Larsen (2006) examine the use of contracts in third party logistics partnerships and the emergence and development of relational governance over time, and Wiese and Toporowski (2013) investigate corporate social responsibility failures within food supply chains.

A second application of the paradigm is the exploration of use of incentives, rewards, and penalties on the alignment of partnerships. The alignment/misalignment of relationships is a stream of literature of particular interest within industrial marketing, where researchers argue that value cannot be created without investigating the reciprocal processes of the marketing and purchasing function (Aarikka-Stenroos & Jaakkola, 2012; Grönroos, 2011; Matthyssens, Bocconcelli, Pagano, & Quintens, 2016). There is however, some debate surrounding the case for relationship alignment. For example, Scherpereel (2006) argues that misalignments result in decision errors and that these should be corrected through realignment. On the other hand, Corsaro and Snehota (2011) suggest that while managers aim to align the partnership, there are conditions that misalignment is able to produce beneficial results as total alignment would reduce the stimulus to change. Value in this view is created within the relationship that could otherwise not have been created individually, such as knowledge generation (Randall, Nowicki, Deshpande, & Lusch, 2014). Thus, the two dichotomous perspectives of value in both the principal and positivist streams closely resemble that of product value and relationship value.

Indeed, both TCE and AT offer useful theoretical foundations to view formal governance mechanisms. In terms of chain coordination, both suggest that as value chains move from producing commodities towards value added differentiated products, they tend to shift towards vertical integration, and move from a short-term, to a long-term view (Hobbs & Young, 2000; Vlachos, 2014). To explore this further, the following section investigates the use of these two theories within the global value chain literature.

2.2.2.3 **Economic Theory and Exchange – A Global Value Chain View**

It is evident from the above exploration of TCE and AT literature that much of the research is focused on the internal and/or the dyadic level. The internal firm literature exploring issues of organisational structure and management of internal operations (Weir, Laing, & McKnight, 2002), and the dyadic literature investigating the various governance arrangements firms enter into. However, value creation and capture take place within a wider system, and so it is important to understand the governance modes that overlay exchanges within the chain as whole. The typologies that exist at the dyadic level are not necessarily adequate to explain the governance structures instituted by network members. Hence, the global value chain (GVC) literature provides additional exchange explanations.

Dyadic exchange governance refers to the management and organisation of the exchange relationship, or the "…institutional matrix within which transactions are negotiated and executed" (Williamson, 1979, p. 239). Within the literature, exchange between two business partners has been extensively researched and several relationship typologies have been developed to describe the continuum of governance options available to organisations (see Table 2-1). These are generally developed within the TCE framework as the unit of analysis in this paradigm is the exchange itself (Williamson, 2005). Here, exchanges typically occur on a multidimensional continuum ranging from spot market transactions at one end, to total ownership/internalisation (vertical integration) at the other, with a particular governance form selected in response to the frequency of exchange, organisational needs, product criticality, and the external environment (Zhang & Aramyan, 2009). However, most exchange sits within these two polar extremes and may be classified as *hybrid* arrangments, as they are neither pure market, nor pure ownership typologies. Instead, they are established using a combination of both formal and informal governance mechanisms and even contracting. Table 2-1 summarieses the various typologies offered in the literature.

The *relationship depth* (operational, tactical, and strategic), *width* (simple through to complex supply chain activities), and *number of actors* engaged (two or more, upstream-downstream), as highlighted by Matopoulos et al. (2007) provides an indication of the 'intensity' of collaborative exchange. Formal contracting can become cost prohibitive in terms of complexity and inflexibility (Dwyer, Schurr, & Oh, 1987), and are necessiarly 'incomplete' (Williamson, 1991). Hence, as exchange relationships move from spot market transactions towards more collaborative arrangements, purely contractual relations give way to normative behaviours such as trust, commitment, and dependence (Peterson, Wysocki, & Harsh, 2001; Raynaud, Sauvee, & Valceschini, 2005; Williamson, 1991). The more intense the collaborative action, the more the relationhship jointly depends upon normative and social behaviours to discourage opportunistism such as underserved value appropriation and coercive power use.

In terms of a value chain view, this literature stream has been much less developed than the governance of dyads (Gellynck & Molnár, 2009; Trienekens et al., 2017). However, there have been considerable theoretical attempts to address this issue. For example, the 'Netchain' concept proposed by Lazzarini, Chaddad, and Cook (2001), argued that not only dyadic, but chain-spanning vertical, and horizontal linkages should be taken into account to understand value chain performance. One of the key articles in this stream of literature is Gereffi (1995) who define the governance of global value chain (GVC) as the "…structure of authority and power relationships between firms that determines how financial, material, and human resources are allocated and flow within a chain" (p. 133).

Table 2-1 Bilateral exchange typologies

<table>
<tr><th>Author</th><th colspan="12">Typology</th></tr>
<tr><td>Williamson (1991)</td><td>Arm’s-length</td><td colspan="10">Hybrid</td><td>Vertical integration</td></tr>
<tr><td>Webster (1992)</td><td>Transactions</td><td>Repeated transactions</td><td colspan="3">Long-term relations</td><td colspan="2">Buyer-seller partnership</td><td colspan="3">Strategic alliance (incl. joint venture)</td><td>Network</td><td>Vertical integration</td></tr>
<tr><td>Peterson et al. (2001)</td><td>Spot/cash market</td><td colspan="3">Specifications contract</td><td colspan="4">Relation-based alliance</td><td colspan="3">Equity-based alliance</td><td>Vertical integration</td></tr>
<tr><td>Raynaud et al. (2005)</td><td>Spot market contract</td><td colspan="2">Relational (or implicit) contract</td><td colspan="3">Relational contract with approved partner</td><td colspan="3">Formal contract</td><td colspan="2">Equity-based contract</td><td>Vertical integration</td></tr>
<tr><td>Schulze, Spiller, and Theuvsen (2007)</td><td>Spot market</td><td colspan="2">Long-term partnerships</td><td colspan="3">Marketing contracts</td><td colspan="3">Production contracts</td><td colspan="2">Contract farming</td><td>Vertical integration</td></tr>
<tr><td>Gellynck and Molnár (2009)</td><td>Spot market</td><td colspan="2">Non-contractual</td><td colspan="3">Contractual relationship</td><td colspan="3">Relation-based alliance</td><td colspan="2">Equity-based alliance</td><td>Vertical integration</td></tr>
</table>

Source: Author

More recently, an article by Gereffi et al. (2005) introduced a GVC typology that identifies five governance types; (1) market; (2) modular; (3) relational; (4) captive and; (5) hierarchy, and these are shown in Figure 2-2. The choice of each governance structure is underpinned by the required complexity of information and knowledge transfer, the extent to which this may be codified, and the capabilities of suppliers. The market structure exists at one end of the continuum whereby, exchange is controlled by the market and parties may make repeat transactions, with low switching costs, such as in the case of commodities. In a modular GVC products are made to customer specifications. However, value is created internally by the turn-key supplier, limiting transaction specific investments, such as in the automotive industry. In a relational chain (such as in the pharmaceutical industry) increasing complexity results in mutual dependence and asset specificity between members. Value is created and captured through spatial proximity of chain linkages, and normative behaviours developed over time. In the next chain, the captive chain, a high degree of monitoring and control is exhibited by lead firms. Small suppliers are dependent on larger buyers and face high switching costs, hence, they are held ‘captive’ in these chains. This type of chain may be seen in the technology hardware sector, such as Apple computers. Finally, at the second extreme is the hierarchy, a vertically integrated governance structure, with a top-down approach to management of the chain, both internally and between the organisation and subsidiaries. A petroleum chain is one such example, whereby the lead firm controls the chain from mining, thru to retail.

Despite theoretical advances, more empirical research in this area is needed. Notable empirical studies include Loader (1997), who studied governance mechanisms used along the export chain of Egyptian potatoes into the UK retail market with a qualitative approach. Gellynck and Molnár (2009), who studied chain governance structures in the traditional food sector, collecting qualitative data across three stages of 54 companies from three countries, and five different product types. Finally, Grunert et al. (2005), who extended the concept of market orientation[2] to the value chain level to empirically develop propositions for determinants of different levels of market orientation, utilising four value chain case studies. While there have been some empirical advancements, these often employ qualitative methods, highlighting the need for more research in this area.

[2] Market orientation: “…chain members’ generation of intelligence pertaining to current and future end-user needs, dissemination of this intelligence across chain members, and chain wide responsiveness to it” (Grunert et al., 2005, p. 430). See Chapter 3, section 3.2.1 for a more detailed description.

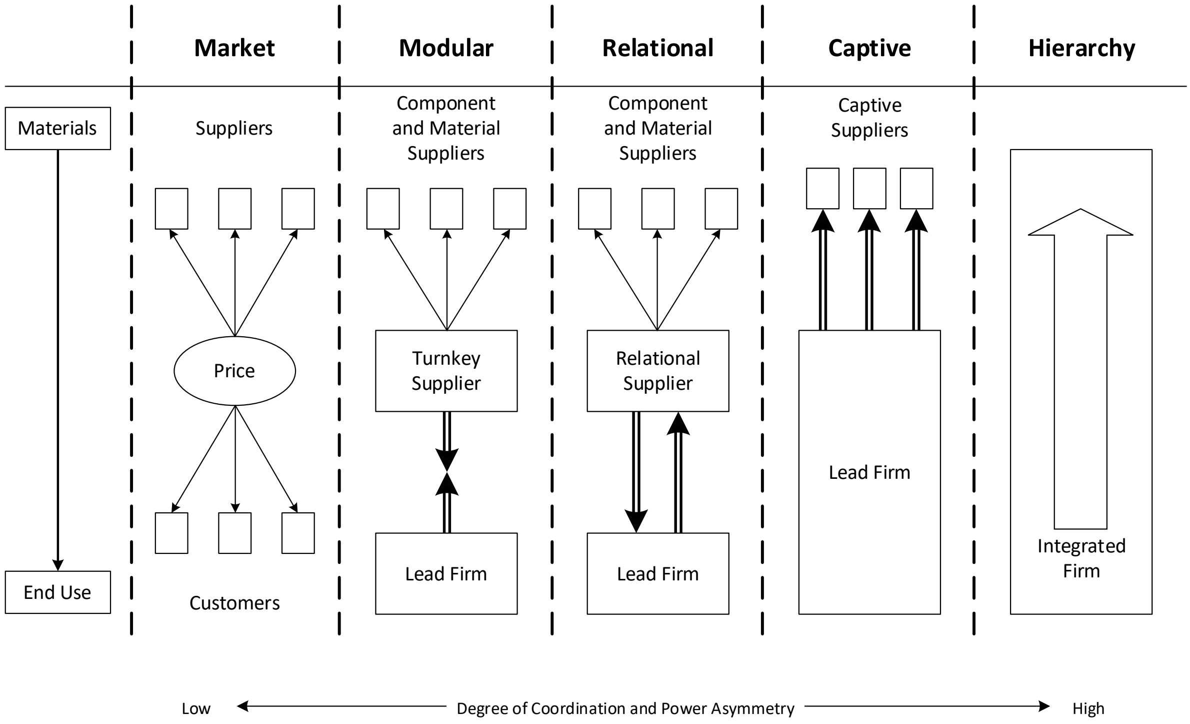

Figure 2-2 Five global value chain governance types
Source: Gereffi et al. (2005, p. 89)

Economic theory also deals with the formal, rational side of exchange, and contracts are a large part of the application of AT in exchange. Bogetoft and Olesen (2002, pp. 186-187) suggested that in order for a contract to be comprehensive it must have three key considerations. Firstly, co-ordination to ensure that the right products are produced at the right time and in the right place. Secondly, motivation to ensure that the parties have individual incentives to make co-ordinated decisions, and thirdly, transaction costs to ensure that co-ordination and motivation are provided at the lowest possible cost. These key considerations highlight the importance of formal arrangements in the value creation and value capture processes, as the contracting schema acts as a form of isolating mechanism. Hence, contracts guide the coordination of critical product and information flows, while incentives ensure that process flows throughout the chain are aligned.

While the economic school provides a framework to safeguard against opportunistic behaviour in the context of market forces, it fails to adequately capture the social nuances of exchange relationships. In contrast, the behavioural school explores where behavioural norms are important, and mediate the relationship patterns and expectations that emerge from reciprocity. In this sense, Relational Exchange Theory and Network Theory become useful theoretical lenses, where behavioural mechanisms such as trust, commitment, joint action, and cooperation become key safeguards against any opportunistic behaviour surrounding value capture (Dwyer et al., 1987).

2.2.3 Behavioural Theory

2.2.3.1 Relational Excahnge Theory

Relational exchange theory (RET) moves from the market structures and formal governance mechanisms of economic theory, towards the rules and norms that help to govern collaborative relationships between firms (Cheshire, Gerbasi, & Cook, 2010). Where in TCE the unit of analysis is the exchange, RET focuses on the relationship between actors, and moves away from formal contracting towards a more social orientation (Aminoff & Tanskanen, 2013). The roots of the paradigm lie in Homans (1958) work that explored friendships between people. The author suggested that exchange between actors represents an exchange of tangible and/or intangible resources. The parties will enter into, and further develop or maintain a relationship based upon the expectation that a reward will be returned, and both parties benefit from the exchange in a form of reciprocity.

A literature review study of RET found the foundation of the theory are the rules and norms of exchange, resources exchanged, and relationships (Cropanzano & Mitchell, 2005), and these themes are common across the literature. Table 2-2 offers a selection of these to highlight common themes and study objectives. Lambe, Wittmann, and Spekman (2001) suggest that RET is particularly useful in explaining business-to-business (B2B) relational exchange; that is, long-term inter-organisational exchange. RET presents a paradigm that helps to explain workplace behaviour, and suggests that interdependent interactions between actors have the potential to lead to positive relationships that over time produce relational exchange norms to govern exchange (Dwyer et al., 1987; Lambe et al., 2001). Further, Emerson (1976, p. 351) suggests that rules form a "…normative definition of the situation that forms among or is adopted by the participants in an exchange relation". Alternatively, Heide and John (1992) describe norms as behavioural expectations based on mutuality of interest to enhance the relationship wellbeing. Hence, rules and norms act as a guidelines and expectations for exchange behaviour, and are based on reciprocity, where one actor's actions are contingent upon the other (Morgan & Hunt, 1994).

Table 2-2 Common themes across the RET literature

Author	Themes	Research Objectives and Findings
Kembro et al. (2014)	Information sharing and reciprocity	A literature review focusing on the different theoretical perspectives employed in supply chain management to understand and analyse information sharing. The authors found that relationship governance theories (including RET) was the second most used paradigm after TCE. Specifically regarding relational theories, the authors found that found that exchange relationships improve inter-organisational cooperation, and that the continuity of these relationships is predicated on the reciprocity of sharing.
Randall, Gravier, and Prybutok (2011)	Trust and commitment	The authors propose that connection is a key driver of co-creation as relationship closeness improves trust and commitment. In turn, this improves future intention among customers of service organisations. The concepts of trust and commitment were based upon Morgan and Hunt's (1994) study, and a sample of 585 questionnaires was gained from church members across four services. The authors found that connection was indeed linked to future intentions, and this was in line with previous studies.
Chumpitaz Caceres and Paparoidamis (2007)	Relationship quality and loyalty	An investigation of relationships from a marketing perspective. Building upon the foundational work of the 1990's, the researchers implemented a 10 point Likert-type scale questionnaire to 234 advertising agencies' clients The authors found that service quality leads to relationship quality (a combination of relationship satisfaction, trust, and commitment), and results in business loyalty in a B2B context.
Lambe et al. (2001)	Trust and commitment, social norms	The authors conduct a literature with the aim of assisting researchers who wish to examine B2B relationships through a relational lens. The researchers found that multiple interactions and reciprocation developed trust in positive relationships. Generally these begin as smaller interactions that increase overtime. This developed trust is a major contributor of partner commitment, and is important in the partners' investment into mutually beneficial outcomes. Overtime as trust and commitment grow, social norms are developed over the longer-term.

Joshi and Stump (1999)	Commitment and opportunism	The authors combined the use of TCE and RET, and stated that effectively governed relationships are characterised by high levels of commitment and low levels of opportunism. A conceptual model was developed to show that specific investments, environmental uncertainty, and relational norms are precursors to commitment and opportunism, with a long-term orientation being used as a mediating variable. Using scenario based experimental method with 168 participants, the authors were able to show support for the roles of various factors.
Gundlach, Achrol, and Mentzer (1995)	Commitment, social norms, opportunism	The study centres on the proportionality of commitment by partners in an exchange relationship and the impact that this may have on developing social norms, opportunism, and long-term commitment intentions. Employing a behavioural simulation of a manufacturer and a distributor over a ten week period, participants completed questionnaires at the end of weeks three and six. The results showed that commitment is positively linked to the development of social norms and long-term intentions. However, may be undermined by opportunism.
Morgan and Hunt (1994)	Trust and commitment	Drawing upon the theory of political economy, the authors stated that power was a central concept when discussing networks and relationships. However, they argue that those factors that distinguish productive and efficient relationships from those that are unproductive and ineffective should be the central concept. They theorise that successful relationship marketing requires trust and commitment to be present as key mediating relationship factors. This was tested using a seven point scale questionnaire with a sample size of 204. The researchers found that trust and commitment were central constructs of relationships and proposed an extended model for future testing, including power and conflict. However, these were not included as central constructs.
Dwyer et al. (1987)	Relationship development	The authors argued that many researchers had treated buyer-seller relationships as discrete transactions, rather than an ongoing relationship. To address this, they offered a conceptual framework for relationship development, suggesting that this would aid in marketing strategy and offer new research directions. The framework posited relationships are developed in five phases; awareness, exploration, expansion, commitment, and dissolution. Included in the exploration and expansion phases are five sub-processes; attraction, communication and bargaining, development and exercise of power, norm development, and expectation development.

Source: Author

The value of collaborative behaviour is seen in activities such as information sharing, collaborative forecasting, and joint inventory replenishment (Fu & Piplani, 2004). Firms are able to "…leverage resources and knowledge of customers and suppliers" to reduce transaction costs and achieve a greater competitive position (Cao & Zhang, 2011, p. 163). Further Aminoff and Tanskanen (2013) suggest that firms are increasingly aware that relationships are a way to generate value through optimising supplier performance. The authors argue that the key to achieving this is through attractiveness, whom Hald, Cordón, and Vollmann (2009, p. 968) define as "…a force of fostering voluntarism in purchasing and marketing exchanges, and further pushing a buyer and supplier together in a mutual advantageous relationship". Alternatively instead of examining attractiveness, Chen, Su, and Ro (2016) examine the gaps in relationship perception. The authors found that in general the supplier tends to overestimate the buyers wish to continue a relationship, but more importantly, found that the buyer values relational norms over dependence. This is interesting given that both interdependencies and relational norms are formed in a collaborative relationship. However, it is important that managers note that norms are a crucial tool in maintaining relationship continuity, and also that the perceptions of a relationship status can be different between actors.

Relational exchange is particularly helpful in explaining the establishment of social rules, norms, and trust in exchange relationships. However, the unit of analysis is the dyad and this limits the usefulness of the theory in examining a system as a whole. Indeed, the attention given to these normative behaviours, does not adequately explain the interactions and governance of value chains as a whole. Rather, as Network theory examines the network as a system and has its roots in sociological constructs, it also allows a focus on governance typologies. Hence, the review now turns to this approach to examine how normative behaviours interact at a chain level.

2.2.3.2 **Network Theory**

The term network is widely used within the management literature, and there are many different definitions and distinct use of terms that may be distinguished. Aside from alternative terms for the concept of a 'network', different types of networks are also present in the literature (see for example: Kähkönen & Lintukangas, 2012; Kowalkowski, Witell, & Gustafsson, 2013; Lazzarini et al., 2001). Provan et al. (2007, p. 481) suggest that the themes across conceptualisations are consistent, often citing "…social interaction, relationships, connectedness, collaboration, collective action, trust, and cooperation".

Broadly, networks from an exchange perspective may be defined as:

> *"…a set of nodes and the set of ties representing some relationship, or lack of relationship, between the nodes" (Brass, Galaskiewicz, Greve, & Tsai, 2004, p. 795).*

With 'nodes' representing actors, and 'relationships' being unconstrained, but typically involving information, social, financial, and product flows (Hearnshaw & Wilson, 2013), and a brief summary of definitions may be found in Table 2-3. Building upon the definition of a 'network', network governance may be defined as:

> *"…coordination characterized by informal social systems rather than by bureaucratic structures within firms and formal contractual relationships between them – to coordinate complex products or services in uncertain and competitive environments" (Jones, Hesterly, & Borgatti, 1997, p. 911).*

Table 2-3 Summary of network definitions.

Author	**Type of Network**	**Definition**
Harland, Lamming, Zheng, and Johnsen (2001, p. 22)	Supply network	Nested within wider interorganization networks and consist of interconnected entities whose primary purpose is the procurement, use, and transformation of resources to provide packages of goods and services. Supply networks comprise chains through which goods and services flow from original supply sources to end customers
Lazzarini et al. (2001, p. 7)	Net chain	A set of networks comprised of horizontal ties between firms within a particular industry or group, such that these networks (or *layers*) are sequentially arranged based on the vertical ties between firms in different layers
Peppard and Rylander (2006, p. 132)	Value network	A set of relatively autonomous units that can be managed independently, but operate together in a framework of common principles and service level agreements
Provan and Kenis (2008, p. 231)	Network	Groups of three or more legally autonomous organizations that work together to achieve not only their own goals but also a collective goal
Kühne et al. (2010, p. 1)	Chain network	A set of networks connected via horizontal and vertical relationships. Horizontal networks consist of firms belonging to the same industry, thus being primarily competitors or peers. Vertical networks are composed of the different partners of the agrifood chain involved in all upstream and downstream flows of products, services, finances, and information

Lusch, Vargo, and Tanniru (2010, p. 20)	Value network	A spontaneously sensing and responding spatial and temporal structure of largely loosely coupled value proposing social and economic actors interacting through institutions and technology
Kähkönen (2012, p. 682)	Value net	A dynamic, flexible network comprising the relationships between its actors who create value through collaboration by combining their unique and value adding resources, competences and capabilities
Hearnshaw and Wilson (2013, p. 444)	Network	A set of "nodes" that represent autonomous business units as firms who are able to exercise sovereign choices, and a set of "connections" that links these firms together for the purpose of creating products or services
Kowalkowski et al. (2013, p. 19)	Value constellation	Actors pursue repeated, enduring exchange relations with one another and deliberately work together to mobilize value creation
Lambrecht, Kühne, and Gellynck (2014, pp. 192-193)	Innovation network	A set of relations through which the company acquires, assimilates, transforms and exploits knowledge, thus serving as the medium for the combined transformation of the company's internal and external resources into an innovation

Source: Author

The study of networks is not limited to the management sciences and different approaches to studying network properties can be found in ecology, biology, physics, and mathematics (Pathak, Day, Nair, Sawaya, & Kristal, 2007). Unlike studying the sociological properties of networks, this body of literature examines whole network topologies (not dyadic) to determine their physical and mathematical properties. This provides insights into the behaviour of network as a whole, something the relational network literature lacks. More recent research has attempted to reduce the dissonance between the two network approaches by suggesting a range of network topologies suitable for building value chain network theory (Hearnshaw & Wilson, 2013). The authors offer some measures of networks such as network transitivity, clustering, and degrees of connectedness that lead to understanding various properties of the network, such as speed of information and innovation diffusion, resilience, and adaptability.

While relational networks and typological properties of networks have been extensively researched, there is a surprisingly small amount of research that addresses the governance of organisational networks as a whole (Provan & Kenis, 2008). Jones et al. (1997, p. 914) define these organisational networks as;

> *"A select, persistent, and structured set of autonomous firms (as well as non-profit agencies) engaged in creating products or services based on*

implicit and open-ended contracts to adapt to environmental contingencies and to coordinate and safeguard exchanges. These contracts are socially – not legally – binding".

The premise being that rather than a series of formal arrangements between firms, networks emerge out of social mechanisms that facilitate relationships among actors to in order to achieve network goals (Alvarez et al., 2010). However, while the governance between network members may be socially binding, the network itself may be contractually mandated such as in the case of collective action in public sector networks (Provan & Kenis, 2008).

Some researchers view governance in terms of power as a determining characteristic of the nature of network contracts and relationships (Sacchetti & Sugden, 2003). The authors suggest that viewing networks in this way shifts the focus of relationships from a discussion of allocative issues to one of distributional issues. This logic is often applied to supply networks where the focus is on the coordination of actors, resources, and activities to deal with issues surrounding relationships and complexity (Braziotis, Bourlakis, Rogers, & Tannock, 2013; Ford, Gadde, Håkansson, Snehota, & Waluszewski, 2010). Hence, while networks are made up of autonomous firms where social contracts are often enacted (Jones et al., 1997), there is also a need for some type of formal governance within and across the network as a whole to ensure that network goals are met, conflicts addressed, and resources used both efficiently and effectively (Provan & Kenis, 2008), all to increase overall chain value.

The focus of this paradigm is attempting to understand the value generation activities of a series of linked firms and attempt to capture value beyond just the dyad through market positioning and other strategic factors (Matinheikki, Artto, Peltokorpi, & Rajala, 2016). Dyadic exchanges are easier to define and measure as they form the individual links within the supply chain network as a whole and can be understood in the network literature as the links (edges) between the nodes (vertices). However, understanding the shape and nature of the network governance as a whole is important and it is in this space that supra-organisational forms exist, such as the 'extended enterprise' (Bititci, Martinez, Albores, & Parung, 2004), 'extended supply chain' (Edwards, Peters, & Sharman, 2001), and 'value constellations' (Corsaro, Ramos, Henneberg, & Naudé, 2012). These configurations go beyond normal organisational boundaries and provide a platform for chain wide visibility, coordination, and conflict resolution. Through the consideration of both bilateral and network forms, a more holistic view of governance emerges, and therefore it is important to also investigate systems governance.

2.2.3.3 **Systems Governance**

Much of the systems governance research focuses on particular types of networks. For example, Jones, Suoranta, and Rowley (2013) identify six types of networks: (1) intra-firm, (2) customer, (3) social, (4) business, (5) innovation, and (6) marketing and sales, and combined these to develop the strategic network marketing model. Other research focuses on areas such as entrepreneurial and small-medium enterprise networks (Gilmore, 2011), innovation networks (Corsaro et al., 2012), internal networks (Ballantyne, 1997), and social networks (Ali, 2011). While these categorisations are useful, there is a lack of research that investigates network typologies of a supply chain as a whole, and this is especially the case in regards to empirical studies. However, that is not to say that research on supply chain governance as a whole is non-existent. For example, Lamprinopoulou and Tregear (2011) map the supply chains of four different products and investigated the link between strength of relationships and marketing performance. Bititci et al. (2004) contribute a theoretical paper that examines the value creation in collaborative networks, citing the network as an extended enterprise.

Perhaps one of the most comprehensive and universal pieces of research in this area is Provan and Kenis (2008) modes of network governance. The authors offer a categorisation of network governance forms, taking into consideration both the loci of power, and the strength of ties between firms. This is achieved by categorising governance along the two dimensions of centralised/decentralised coordination, and participant/externally governed (see Figure 2-3). Where governance is decentralised and the network is governed by participants, there are many interactions between organisations and hence, governance is shared. It is argued that this particular form of governance occurs among the formal ties between organisations, and also along the informal interpersonal ties between individuals. For example, in the healthcare sector nurses often enact a shared governance model whereby members are jointly responsible for achieving goals, are self-directed, have access to information, and exercise authority and control over work tasks, yet are contracted to a particular organisation (Anthony, 2004).

When coordination is centralised, and the network is governed by participants, there are fewer organisation-to-organisation interactions and commonly a lead organisation will emerge within the system (Provan & Kenis, 2008). This form of governance is common in the agricultural sector, whereby a lead organisation is responsible for the coordination of some or all of the chain/network. For example, Mutti S.p.A, an Italian tomato processor, coordinates with producers on farm to incentivise the production of certain tomato varieties, while also investing in brand marketing, and innovation to deliver and communicate superior quality to the market (Alvarez, Knoop, & Shelman, 2013). Here there is a distinction between lead organisations that are directly involved in the operations of the chain, and those that govern the chain but are not directly involved in operational processes. The first are often called 'channel captains' or lead organisations, while the latter are often industry bodies or associations that have been granted some authority (either participatory or mandated legislatively) to govern the supply chain by setting polices, standards, or advocacy.

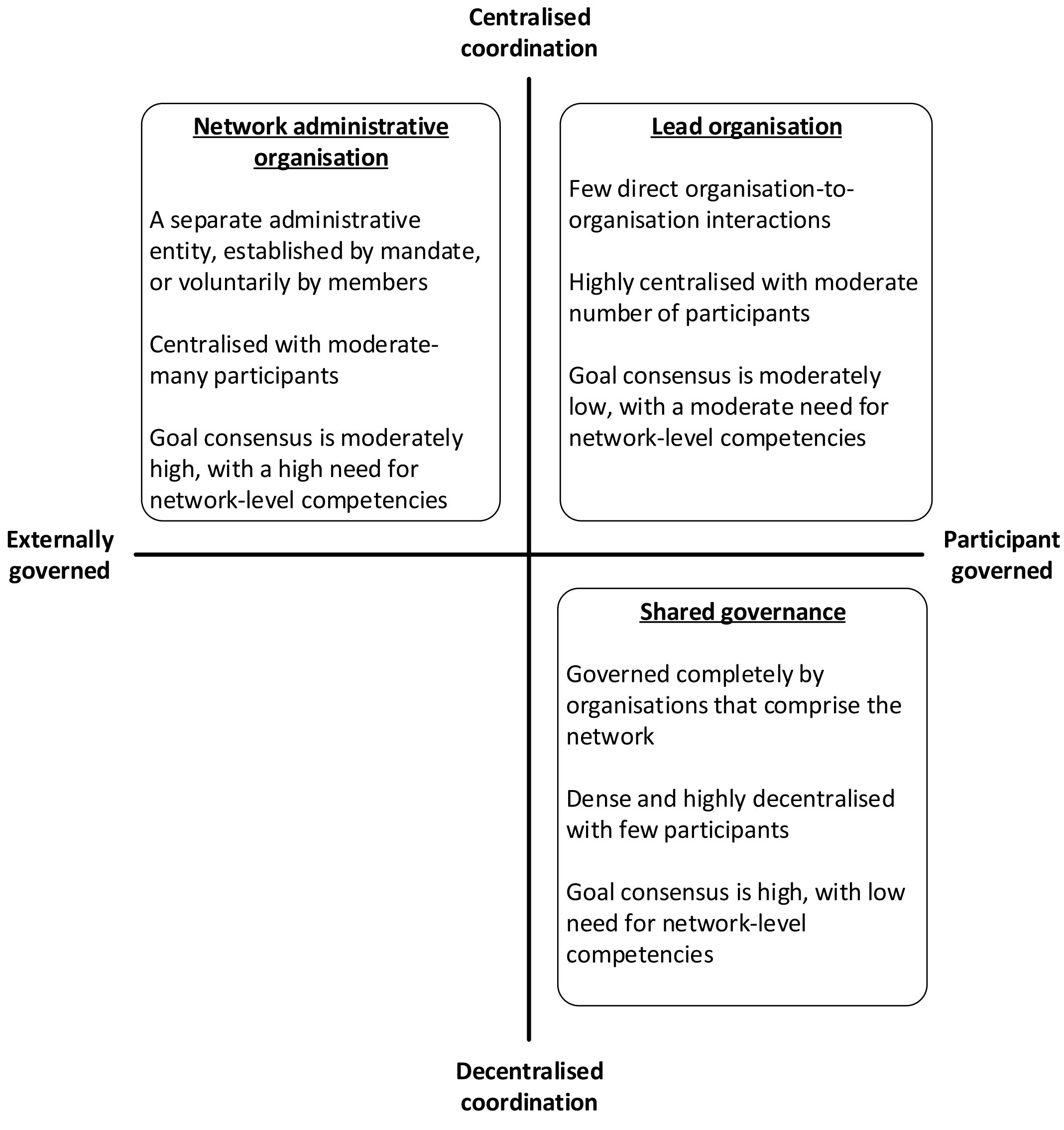

Figure 2-3 Modes of network governance
Adapted from Provan and Kenis (2008) and van Velzen (2016)

In the case of externally governed networks Network Administrative Organisations (NAO) may be either voluntarily established by network members themselves, or may be mandated by legislation to coordinate the network (Provan & Kenis, 2008). In this sense they act in a manner similar to 'lead' organisations, however the NAO supports, rather than executes network leadership and Provan et al. (2007) suggest that the NAO form of governance may coexist with other forms of governance. In New Zealand for example, Beef + Lamb New Zealand Ltd is an NAO voluntarily established by farmers to act as an industry organisation, promoting beef and lamb in the both the domestic and international market (Beef + Lamb, 2018). However, the organisation is not involved in any production and processing, and farmers supply produce into a value network of choice, each with its own unique governance structure.

It is clear that within supply chain management no one theory can sufficiently explain the governance of supply chains. Indeed, much research adopts a multi-theoretical view (Halldórsson et al., 2007; Holcomb & Hitt, 2007; Wang & Wei, 2007). This review has highlighted that when different theoretical paradigms are applied simultaneously, one can gain a better understanding of how value may be created and captured through collaborative activities between firms. RBV explores how a firm's resources and capabilities can be exploited to create value. TCE provides an efficient market structure in which to reduce costs, and AT and RET support this by ensuring the alignment of goals and incentives, and the establishment of social rules and norms. The result of this is the integration of processes and functions between parties, a key aim of organisations. Table 2-4 provides a summary of the theoretical paradigms explored in thus far in this literature review. Hence, having established a theoretical foundation for the study, this review moves on to discuss the concept of value creation and capture within value chains.

Table 2-4 A summary of theoretical paradigms explored in the literature review

Characteristics	Organisational Theory	Economic Theory		Behavioural Theory	
	Resource-Based View	**Transaction Costs**	**Agency Theory**	**Relational Exchange**	**Network Theory**
Origin	The theory of the firm	Contract law, economics, and organisational theory	Risk sharing literature	Anthropology, sociology, and psychology	Sociology, ecology, biology, physics, and mathematics
Central Premise	A competitive advantage may be gained through exploitation of resources and capabilities	Market structure arrangements directly impact transaction costs	Incentives can be aligned through contractual forms such as outcome and behavioural based	Collaborative efforts generate relational rent	Informal social systems may be used to coordinate complex product offerings in uncertain and competitive environments
Focus	Strategy and achieving firm heterogeneity	Efficient market structures	Contractual arrangements	Relational rules and norms of collaboration	Social norms and network topology
Relationship type	Various	Arms-length, hybrid, vertical integration	Contractual	discrete through to relational	Horizontal and vertical ties
Behavioural assumptions	• Power • Dependence	• Bounded rationality • Opportunism • Self interest • Full information	• Risk aversion • Opportunism • Self interest • Bounded rationality	• Reciprocity • Interdependence • Trust • Commitment	• Autonomy • Behaviour is a function of ongoing relations
Other assumptions/ dimensions	• Resource immobility • Resource heterogeneity	• Asset specificity • Hold-up problems • Utility maximisation	• Moral hazard • Adverse selection • Incentives	• Dark-side of collaboration • Opportunism	• Topology constrains actors • Ongoing interactions

Source: Adapted from Barney (1991); Cropanzano and Mitchell (2005); Eisenhardt (1989); Halldórsson et al. (2007); Provan et al. (2007); Williamson (1979)

2.3 The Concept of Value

Traditionally when the term 'value' is used in the context of supply chains it generally refers to ideas of cost saving or greater returns from the supply chain (Kähkönen & Lintukangas, 2012). However, the concept of value has a long history and is used across different business disciplines. The most basic premise being that for an object to hold value, it must satisfy a particular need or want of a sentient organism (Hilliard, 1950; McKnight, 1994). The original theory, derived from Aristotle's school (Gordon, 1964), provides two foundational perspectives of value: *value-in-use* (use-value) and *value-in-exchange* (exchange-value). Smith (1784, p. 26) stated that value "…sometimes expresses the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys". Value-in-use received is dependent on the user's perceptions of productivity or utility, and Gordon (1964) highlights three characteristics of use-value: (1) use-value is subjective; (2) use-value will begin to decline as the quantity consumed increases (diminishing marginal returns); (3) the value of an object will increase if consumed conspicuously. In contrast, value-in-exchange is viewed as the market price of a product, contingent upon the costs of production, scarcity, and perceived use-value (Woodall, 2003).

It can be argued that "…a phenomenological view of value suggests that value creation is the customer's creation of value-in-use during usage, where value is socially constructed through experiences" (Grönroos & Voima, 2013, p. 137). According to this view, firm activities produce potential value-in-use that is either co-created in joint activities between the firm and the customer, or, through the customer's own interactions with the product offering. In regards to the latter, Lancaster (1966) proposed that consumers derive their use-value from the attributes of the object consumed. These are categorised as either intrinsic or extrinsic attributes, whereby intrinsic attributes are a part of the physical product and may not be changed without altering the physical characteristics of the product itself, and extrinsic attributes are those related to the product but are not physically part of it (e.g. brand) (Olsen & Jacoby, 1972). Hence, the firm's ability to capture value is underpinned by its ability to align activities and processes to the demands of the customer.

Additionally, a firm creates value-in-exchange through its processes and captures this in the point-of-sale transaction. Regarding the value-in-exchange perspective, the firm captures value through profits and aims to maximise returns through value-adding firm activities. This perspective often adopts one of Porter's (1985) generic strategies where an increase of value is born out of offering equivalent benefits for a lower comparative price, or alternatively, a differentiated product with benefits justifying a higher price point. Hence, the two forms of economic and psychometric value are closely connected as the firm creates value-in-use through its activities, and then transfers this value to the customer at the point of sale where value-in-exchange is realised (Bowman & Ambrosini, 2000).

Value creation by firms takes place in a variety of ways and Lindgreen and Wynstra (2005) highlight two main research streams surrounding this: goods and services value, and relationship value. The former of these is concerned with the benefits of the product offering and the sacrifices incurred in purchase and consumption (Zeithaml, 1988). The firm’s ability to maximise benefits and reduce sacrifices is contingent upon its understanding of the customer and ability to leverage capabilities and resources to this effect (O'Cass & Sok, 2013). Additionally, firms do not act in isolation, and a relationship value perspective suggests that value is created when firms pool knowledge and skills to attain higher profits through their supply chain rather than working independently (Enz & Lambert, 2012). The firm then attempts to capture value (value-in-exchange) through its value appropriation activities. This is enacted through contractual and behavioural mechanisms and mediated by factors such as relationship quality (Lages, Lages, & Lages, 2005), firm position in the supply chain network (Gereffi et al., 2005), and supply chain network structure (Hearnshaw & Wilson, 2013).

Despite the heavy use of the term ‘value’ in business literature, there is still a lack of research that investigates how the supply chain perceives and responds to the value perceptions of the customer with regards to value creation and value capture efforts. Additionally, the concept is somewhat overused leading researchers to note its conceptual ambiguity (Wagner, Eggert, & Lindemann, 2010). Further, while the term value creation and value capture are distinct (Lepak et al., 2007), there is still a need for a holistic understanding of the two as they each is contingent upon the other; they act in a sequential and iterative way that is demonstrated in Figure 2-4.

The following sections aim to highlight and distinguish the different uses of value in the area of supply chain management through a review of supply chain value creation and value capture. Where possible, an agribusiness context has been applied as organisations in the sector often have difficulty in moving away from commodity production into value added production, usually due to the hold of difficult to overcome ideologies (Press et al., 2014). Further, the firms studied in this research have all been selected from the agribusiness sector as value creation and capture occur frequently in current firm strategy, industry documents/reports and policy initiatives.

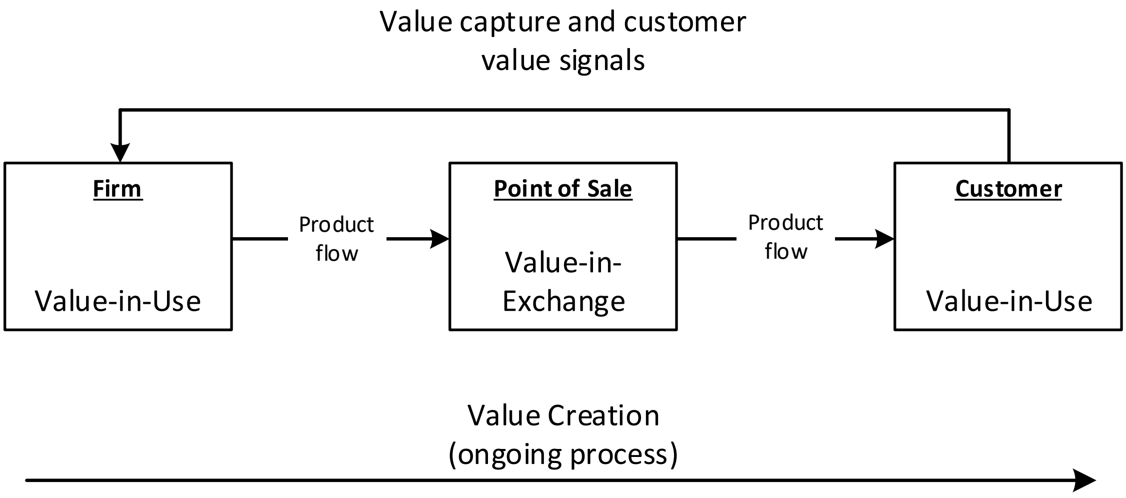

Figure 2-4 Value creation and Capture Process
Source: Author

2.3.1 Value Creation

A supply chain is a complex network and there is a need to understand how value perceptions differ and align in order to ensure maximum value delivery to the final consumer. This review highlights both the importance of 'value' and 'value creation', and Kähkönen and Lintukangas (2012) describe the difference between the two, whereby perceived value is the *subjective benefit and sacrifice trade-off*, and value creation a process (Bowman & Ambrosini, 2000; Grönroos & Voima, 2013; Payne, Storbacka, & Frow, 2008) that leads to an increase in "…the customer's well-being, such that the user becomes better off in some respect" (Grönroos & Voima, 2013, p. 134). For the purposes of the current discussion, perceived value has been included here as the 'demand-side view of value'.

Value creation has been categorised along two main streams of literature: goods and services value, and relationship value (Lindgreen & Wynstra, 2005). The first is concerned with how firm activities create (or destroy) value for both the customer and other stakeholders (supply-side value) (Schenkel, Krikke, Caniëls, & der Laan, 2015). The supply side value perspective aligns more closely with the RBV of the firm. In contrast, the co-creation perspective investigates how firms create value through value co-creation and collaborative arrangements (co-creation and relationship value) (Wagner et al., 2010), and is rooted within relational exchange theories. The remainder of this section addresses each of these individually.

2.3.1.1 **Demand-Side View of Value**

A firm's competitiveness depends largely on its ability to understand what consumers' value. As a result, the concept of customer value has attracted a great deal of consideration within the marketing and supply chain literature. Consequently, there are a vast number of definitions competing for attention. This has led researchers to argue that customer value remains an ambiguous term, both within the marketing (Sánchez-Fernández & Iniesta-Bonillo, 2007; Smith & Colgate, 2007) and purchasing literature (Purchase, Goh, & Dooley, 2009). Early research in defining customer value conceptualised the construct as a unidimensional trade-off between price and quality (Dodds & Monroe, 1985). This definition has drawn criticism for being too narrow, and the trade-off between benefits and sacrifices has since become a dominant view of value.

Value is commonly defined as "…the overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml, 1988, p. 14). This approach connects the values of the customer to their behaviour (Gutman, 1982), and suggests that product evaluations occur based on perceptions of price, quality and value, as opposed to the objective components of price and quality as proposed by Dodds and Monroe (1985). The assessment of utility is based upon the intrinsic and extrinsic attributes of the product (Zeithaml, 1988), and Lancaster's (1966) seminal work proposed that the good itself does not give utility to the customer. Instead, the product offering can be perceived as a bundle of attributes and it is these product characteristics that give rise to utility.

A summary of various definitions within literature can be seen in Table 2-5. The differing units of analysis are highlighted as both the marketing and purchasing literature are reviewed in this chapter. In an effort to manage this, the table below shows both business-to-consumer (B2C) and business-to-business (B2B) conceptualisations. The aim of both B2C and B2B groups being the maximisation of product and service benefits, while simultaneously minimising cost without compromising quality (Purchase et al., 2009). The common theme across definitions is that the customer value process begins with the search for an offering and involves a set of trade-offs to gain utility. However, the net customer value of the product is not fully realised until after consumption.

Table 2-5 Summary of customer value definitions

Context	Author	Definition	Focus of the Definition
B2C	Al-Mudimigh, Zairi, and Ahmed (2004, p. 311)	"Customer value typically involves trade-off between what the customer receives (e.g. quality, benefits, worth) and what he or she gives up to acquire and use a product or service (e.g. price, sacrifices)."	The perceived net benefit of the offering (intrinsic and extrinsic attributes) is gained through consumption, and requires both benefits and sacrifices to be taken into account.
	Mudie (1997, p. 144)	"… customers' judgements or perceptions of product/service value represent their summary evaluations of it, taking into account the benefits that they perceive as offered and the price they perceive as required to obtain these benefits".	The perceived net benefit of the offering when trade-offs are taken into account. This includes both intrinsic and extrinsic attributes, as well as the search, transaction, and use costs.
	Woodruff (1997, p. 142)	"Customer value is a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations".	Value is perceived through consumption of a product offering.
	Zeithaml (1988, p. 14)	"Perceived value is the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given. Though what is received varies (i.e., some may want volume, others high quality, still others convenience) and what is given varies (i.e., some are concerned only with money expended, others time and effort), value represents a trade-off of the salient give and get components".	The perceived utility gained through the purchase and consumption of a product offering, taking into account the trade-offs involved in the purchase.
Both B2C and B2B	Grönroos (2000, p. 3)	"Customers do not buy goods and services, they buy the benefits goods and services provide them with… Value is created in the customers' value-generating processes, when individual customers or industrial users make use of the solution or package they have purchased".	Customers by the benefits of goods or services. However, value is realised by the consumption of the product offering.
B2B	Anderson, Jain, and Chintagunta (1993, p. 5)	"Perceived worth in monetary units of the set of the technical, economic, service, and social benefits received by a customer firm in exchange for the	An economic perspective of the perceived monetary worth of benefits in exchange for

		price paid for a product offering, taking into consideration the available alternative suppliers' offerings and prices".	the price paid, taking into account the opportunity cost.
	Töytäri, Alejandro, Parvinen, Ollila, and Rosendahl (2011, p. 494)	"Customer value can be classified as either desired or perceived value. Desired value refers to what the customer wants to have from a product or service offering in a specific use situation in order to achieve the customer's desired goals… Customer perceived value is the net value achieved considering all benefits and sacrifices in the search, purchase and use of the offering".	Desired value: the functionality of the offering in achieving a specific goal. Perceived value: net benefit after taking into account cost of the search, purchase, and use of the offering.
	Walter, Ritter, and Gemünden (2001, p. 366)	"The perceived trade-off between multiple benefits and sacrifices gained through a customer relationship by key decision makers in the supplier's organization. Those benefits and sacrifices can result from connected relationships in which the focal relationship has an impact or is effected by those other relationships".	The trade-off of benefits and sacrifices that may arise from the relationship under question, including the extended network where connected relationships may be affected.

Source: Author

An implementation of value chain thinking requires that the final consumer become the focus of value creation efforts by firms and the ultimate arbiter of value within the chain (Sánchez-Fernández & Iniesta-Bonillo, 2007). Therefore, there is a need to understand how the final consumer formulates value perceptions and Woodall (2003) is noted for providing a comprehensive framework, defining the concept as:

> *"… any demand side, personal perception of advantage arising out of a customer's association with an organisation's offering, and can occur as reduction in sacrifice; presence of benefit (perceived as either attributes or outcomes); the resultant of any weighed combination of sacrifice and benefit (determined and expressed either rational or intuitive); or an aggregation, overtime, of any or all of these" (p. 21).*

This framework integrates the economic and philosophical views of value to explain the decision-making process of a consumer, arguing that while use-value and exchange-value are how value is commonly perceived, this should be complemented with a philosophical view that seeks to explain *how* and *why* options are chosen and prioritised. Hence, when dealing with individuals as opposed to firms, affective states become important, and firms should aim to elicit positive emotive responses from final consumption through the use of product attributes in an effort to generate customer satisfaction and loyalty (Smith & Colgate, 2007).

In the agribusiness industry, intrinsic and extrinsic attributes are found in food products, whereby intrinsic attributes refer to experience characteristics such as taste, texture, and other sensory attributes, but also health and convenience attributes (Trienekens & Wognum, 2013). Extrinsic attributes on the other hand reflect aspects that are related to the production process and its impact on the environment and society, and transaction-related ethical and/or unethical practices (Trienekens & Wognum, 2013). In other frameworks these are also known as *credence attributes*; attributes that are important to consumers based upon personal values, but not able to be validated through or after consumption (Steenkamp, 1990). The use of extrinsic and credence attributes is usually enforced through standards, and communicated to consumers through labelling in order to foster trust in the product offering (Vlachos, 2014). Hence, as a value creation strategy firms may exploit these consumer needs to offer a differentiated product (Porter, 1985), and the review now turns to the supply-side view of value creation to investigate this further.

2.3.1.2 **The Supply-Side View of Value Creation**

It may be argued that a firm's value creation is generated from three perspectives; firstly, the ability to compete and respond to industry environmental challenges, secondly, the ability to exploit relational capabilities, and finally, ability to understand and respond to the customer (Kähkönen & Lintukangas, 2012). Barney (1991, 2002) and Wernerfelt (1984) argue that these abilities are underpinned by the firm's resources, competencies, and product configurations. Indeed, the supply chain management literature suggests the nature of the business environment has changed with advancements in technology, globalisation, and drive to reduce system costs resulting in competition shifting from the firm level to the system level (Christopher, 2005; Fawcett & Cooper, 2001; Mentzer et al., 2001). Along these lines, Holcomb and Hitt (2007) suggest that the supply chain itself has the ability to create unique competencies that companies do not hold independently. Hence, when adopting a supply side view of value creation it becomes useful to consider the wider competitive environment, the firm, and alignment or integration with the supply chain network (Barney, 2012). A summary of supply-side value can be found in Figure 2-5.

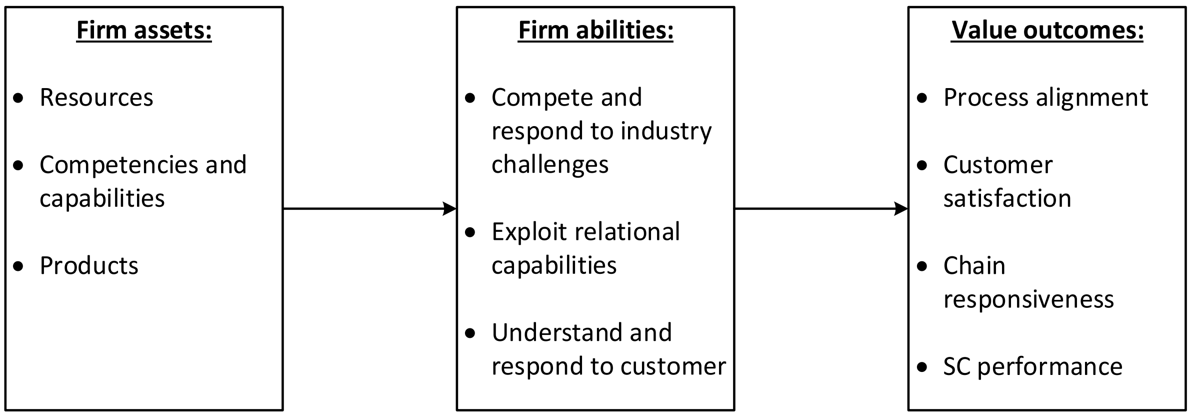

Figure 2-5 The impact of firm assets and abilities on supply-side value creation outcomes
Source: Adapted from Barney (1991, 2002, 2012); Kähkönen and Lintukangas (2012); Wernerfelt (1984)

In perfectly competitive markets, labour offers a way to differentiate products, as labour is largely heterogeneous between firms (Bowman & Ambrosini, 2000). This particular perspective draws parallels with the knowledge based view of the firm, that suggests that labour is a key strategic and inimitable resource to be leveraged (Kang, Morris, & Snell, 2007). Alternatively, Grönroos (2004) suggests that when goods lose their heterogeneity due to increasing competition, only services such as just-in-time logistics and customer service are able to be used by marketers to promote value.

O'Cass and Sok (2013) suggest that innovation capability underpins a service firm's value creation ability, that in turn is strengthened by management style, employee behaviours and marketing. In order to deliver superior value to customers, there are three capabilities of critical importance. These are innovation capability, marketing capability, and market sensing capability (gained from adopting a market orientation) (O'Cass & Ngo, 2012). However, Teece et al. (1997, p. 515) suggest that possessing these capabilities is not enough to ensure success. It is important that management is also be able to "…effectively coordinate and redeploy internal and external competences" where and when needed.

While various authors argue the increasing importance of intangible resources, the use of tangible resources cannot be ignored. Natural resources for example, are critical for the development of sustainable resource efficient supply chains (Matopoulos et al., 2015), especially in land-based agricultural systems where production is limited by environmental considerations (Gustavsson, Cederberg, Sonesson, van Otterdijk, & Meybeck, 2011). Natural resources include both genetic material (biodiversity) as well as factors such as climatic conditions, and soil quality that can have considerable effects on end consumer value derived from food products. On the other hand, farmers and agribusiness firms can engage in experimental learning, using extant varieties and breeds, selecting those that best fit with the natural conditions at a given location.

From the above, it is clear that firms do not exist in isolation and are positioned within inter-organisational B2B networks that compete in an ever changing environment. To maximise value creation for the end user it is important to achieve inter-firm alignment with network partners. That is, those firms who offer mutually beneficial relationships through sharing or utilisation of assets and abilities that are complementary, but not accessible, to the focal firm. In this sense, each relationship offers unique value outcomes, ensuring competition heterogeneity remains and competition does not dissolve throughout the wider network. Following this observation, the discussion now turns to these inter-organisational relationships to explore how firms gain competitive advantages through co-creation with other firms and collaborative arrangements.

2.3.1.3 **The Co-Creation and Relationship View of Value**

While a key goal of business may be the creation of value for the final consumer, having a market orientation and a superior product offering is not enough to gain a marketplace advantage (O'Cass & Ngo, 2012). Firms also seek to build relationships and engage in collaborative activities. Indeed, Vargo and Lusch (2008) state that value creation is at the core of exchange, and Yan, Yang, and Dooley (2017, p. 154) suggest that supply relationships create several types of value, namely; "…core value production, value adding relational value, and future oriented relational value". Additionally, while firms seek to enter into cooperative arrangements with other parties, each organisation will have its own objectives and perceptions of value in respect to inter-organisational relationships and these are summarised in Table 2-6. Hence because of these differing views, much of the literature has focused on the value of a relationship from either the buyer's perspective (Flint, Woodruff, & Gardial, 2002; Ulaga & Chacour, 2001) or the supplier's perspective (Walter et al., 2001). Only more recently has research examined value perceptions from a symbiotic co-creation aspect (Aminoff & Tanskanen, 2013; Chen et al., 2016; Geiger et al., 2012). Further, Yan et al. (2017) stress the potential of adding value to a firm through their own (supplier and buyer) networks, from whom they derive knowledge that may be deployed in other customer relationships as well.

Table 2-6 The relationship development outcome expectation of buyers and suppliers

Supplier	Buyer
• Improved price/volume tradeoff • Growth • Access to new buyers • Competency development • Technical knowledge and product designs • Reputation improvements	• Cost reduction • Time compression • Innovation and learning • Access to new buyers/sellers • Competency development

Source: Adapted from Hald et al. (2009); Smals and Smits (2012)

Relationship value and co-creation may be defined as "…the sum of the benefits and cost reductions generated in an ongoing exchange with a business partner" (Geiger et al., 2012, p. 84). Lindgreen and Wynstra (2005) suggest that relationships have value for both parties, as exchange becomes predictable, allowing for the integration of business activities, while Pinnington, Meehan, and Scanlon (2016) suggest that this value is derived from a highly structured supply base and outsourcing to deliver innovation. The effort expended in maintaining and enhancing the partnership is important in the management of relationship type. Here, it is possible to distinguish between two relationship approaches in creating value; co-creation and collaboration. Co-creation tends to be tactical in nature and combines knowledge and skills to achieve higher profits than could be realised when working independently (Enz & Lambert, 2012). In contrast, collaborative relationships have a strategic longer term focus and are fostered on the premise that the relationship interaction itself co-creates additional value for both the customer and the supplier (Grönroos, 2004).

Managers hoping to enhance relationship value often work towards more collaborative relationships. This is summarised well by Arndt (1979, p. 72) who concludes that "…both business markets and consumer markets benefit from attention to conditions that foster relational bonds leading to reliable repeat business". However, this is not to suggest that arms-length transactional exchange should be avoided, as these exchanges are indeed appropriate for non-critical and non-differentiated product offerings (Williamson, 1979). Consequently, several typologies exist to explain the different relationship forms ranging from spot market to full integration, with a consensus that as partnerships move away from the spot market, mechanisms such as trust, commitment, and dependence become more important (Bensaou, 1999; Raynaud et al., 2005; Williamson, 1991). Similar dyadic relationship typologies have also been applied at the supply chain and network level within the agribusiness literature (Gereffi et al., 2005; Hobbs & Young, 2000; Provan & Kenis, 2008).

Due to the operant (skills and knowledge) focus of co-creation, literature in this area often adopts a service-dominant (S-D) logic whereby "…value is the outcome of relational enactments and interaction between the providers and receivers of an offering" (Rod, Lindsay, & Ellis, 2014, p. 605). This logic is espoused by Vargo and Lusch (2004, 2008, 2010, 2016) who argue that value is neither consumed nor destroyed, but rather co-created in interactions between actors who participate in the process. Within the S-D logic framework, recent research has focused on: customer engagement in value co-creation (Payne et al., 2008); co-creation in the context of knowledge intensive services (Aarikka-Stenroos & Jaakkola, 2012); cross-functional processes (Enz & Lambert, 2012); capabilities and processes employed in value co-creating (Marcos-Cuevas, Nätti, Palo, & Baumann, 2016); marketing strategy and operations efficiency (Kalaignanam & Varadarajan, 2006); and, supply chain issues and value chain management (Flint & Mentzer, 2006). This research offers valuable insights into the co-creation process. However, as Randall et al. (2014) highlight, while S-D logic is well suited to supply chain management and has the potential to have a significant impact on the field, the literature lacks a clear articulation of practice and further empirical research in this area is warranted. Moreover, the logic stresses that a shift from physical resources (operand resources), to skills and knowledge (operant resources) is needed in order to create a superior value offering for the final customer (Ngo & O'Cass, 2009). Hence, learning becomes important as it fosters co-innovation and leads to new product or service solutions in inter-organisational networks (Westerlund & Rajala, 2010).

Interestingly, the power/dependence perspective is largely missing from the value co-creation and S-D logic literature (Kohtamäki & Rajala, 2016). This is due to the focus being mainly upon the *interactions* between the firms, rather than the *negotiations* surrounding the development of the relationship. However, when examining research related to value capture this becomes a key consideration. Therefore, it is useful to explore both when examining value at a chain level, as value creation is centred on the intra-organisational and inter-organisational interactions between partners, while value capture uses market logic to investigate the negotiations surrounding value appropriation, and the review now turns to this.

2.3.2 **Value Capture**

There is a great deal of research within the management sciences that attempts to understand the value creation process for the sake of value capture of the resultant profits (Alvarez & Barney, 2004). Value capture has been defined as "…the value generated by the customer asset that is appropriated by the firm" (Nenonen & Storbacka, 2014, p. 102). In other words, the value that a firm appropriates is the proportion of value chain net value that they are able to capture (Wagner et al., 2010, p. 841). Hence, the literature argues that economic profit should be the main measure of value capture for both B2C and B2B contexts (Schulze, Skiera, & Wiesel, 2012; Ulaga, 2001).

If the value creation activities generate additional utility after accounting for the opportunity costs of the resources used to create the value (Agafonow, 2014), then the next obvious questions is who will appropriates this? Lepak et al. (2007) notes that those who create value in a supply chain may not always be the ones who capture that value. It may dissipate across other supply chain actors, the wider economy, and society in general (Santos, 2012; Schenkel et al., 2015), a process termed 'leakage'. For example, Santos (2012) distinguishes between social entrepreneurs who generate aggregate value for society in general, and commercial entrepreneurs who generate value for self-interested reasons. While the former is less interested in value capture and hope to add positive externalities to society and the latter more profit motivated, in reality both leak value through the complex interactions between society and business. Value can be also be leaked, or destroyed, in a supply chain through inefficiencies, wastes, and quality deterioration (Skjøtt-Larsen et al., 2007), or through *frictions, as* discussed further in the following section (Chatain & Zemsky, 2011). Indeed, Nenonen and Storbacka (2014) argue that if too much value leaks, then there will be little incentive for the value creator to continue.

A holistic understanding of value capture balances the short-term aims of profit maximisation versus the longer term view of joint value creation in the supply chain (Voeth & Herbst, 2006). Consequently there are advocates of a 'capture the profits now' approach (Cox, 2004) on one side, and those championing longer-term collaboration to increase the mutual profits on the other (Carlisle & Parker, 1989). However, these positions may be somewhat reconciled by refocusing on either the organisational level or the supply chain systems level. Choosing to forgo value capture at the organisational level can at times have system level benefits that eventually returns a positive mutual indirect benefit for the whole supply chain (Voeth & Herbst, 2006). However this is not always guaranteed, and the self-interested/collaborate dilemma has driven a wealth of research in the areas of the evolution of cooperation (Axlerod, 1990). From this base, the literature suggests that there are a number of factors that influence the ability of the firm to capture this value, and the following section investigates these further.

2.3.2.1 **Factors Affecting Value Capture**

Lepak et al. (2007) argue that value capture can be achieved through two main mechanisms: *competition* and *isolating mechanisms,* and a summary of these can be found in Table 2-7. Value capture and competition is well explained by Porter's (1985) product differentiation, market segmentation, and cost leadership strategies. Firms seek to offer something unique to consumers and hence, command higher exchange value through limited supply and a higher demand. Hence, the firm aims to create heterogeneity in regards to use-value (product) and consumption experience (consumer perceptions). However, as competition increases, homogeneity of value takes place as competitors seek to capture value-in-exchange through the imitation and/or replication of the product form and consumption experience. The original value creator of heterogeneity loses value, or leaks value to competitors as the market homogenises and less differentiation can be discerned by consumers. Consequently, over time as supply increases, exchange-value (prices) will decrease until equilibrium is achieved (Alvarez & Barney, 2004; Lepak et al., 2007). Value is then shared more equally amongst the competitors, and as cost leadership emerges as the key way to differentiate, the consumer begins to capture more of the value generated. This is most seen in mature and/or commodity markets, such as food and agribusiness (Reypens, Lievens, & Blazevic, 2016).

Table 2-7 Summary of the key value capture factors and their desired outcome

	Value capture mechanism	Desired outcome

Competitive strategic Choice	• Product differentiation
	• Market segmentation
	• Cost leadership
		• Create heterogeneity through:
		  ○ Product
		  ○ Consumer perception
		• Create a cost competitive advantage

Isolating mechanisms	• Unique knowledge creation • Physical • Legal	• Prevent value leakage • Create a competitive advantage

Source: Adapted from Lepak et al. (2007); Porter (1985)

Other factors that destroy value or prevent value capture by non-initiators are termed *frictions.* Chatain and Zemsky (2011, p. 1206) define these as "…incomplete linkages in the industry value chain that keep some parties from meeting and transacting". The authors identify three key factors that hinder trade; search costs, transaction costs, and barriers to trade. Organisations accrue search costs when they expend resources in the search of a new business partner, and incur transaction costs in the negotiation and execution of partnership agreements (Williamson, 1975). Where firms are fearful of a hold-up problem, or operate in an uncertain environment they will face higher costs as the conditions surrounding an exchange are unable to be fully specified, and hence firms tend to spend more on ongoing negotiations surrounding the exchange relationship (Grover & Malhotra, 2003). Barriers to trade refer to the external regulatory environment, namely international trade barriers (Chatain & Zemsky, 2011) that are implemented by countries to allow their domestic producers to capture value that would be lost to competitors from countries with more favorable natural and/or regualtory environment for the prodcution of a good or service. Trade agreements and efforts to integrate national markets are effective ways to encourage trade as buyers are able to consider a larger number of suppliers with whom to partner.

Frictions, at least in part, are external to supply chain control and the key concern becomes how to shift the value capture back towards the firm again. Lepak et al. (2007) suggest that innovation has a key role to play in this process as value creation efforts lead towards greater exchange value. Innovation requires firms to create and possess not only new knowledge, but also unique competencies, leading to processes that are unique and non-imitable (Ngo & O'Cass, 2009). Additionally, innovation rarely takes place in isolation and firms enter into unique collaborative arrangements with partners in an effort to acquire the needed competencies and through the specific governance arrangements that allow firms to capture value (Barney, 2012). While a firm may aim to create innovative product/service offerings, the market reaction is for competitors to enter the same market though imitation or replication attracted by any supra-normal rents (exchange value). Hence, the cycle of value capture by non-initiators and competition repeats.

One way to combat this is through the use of isolation mechanisms and these may be defined as "…any knowledge, physical, or legal barrier that may prevent replication of the value-creating new task, product or service by a competitor" (Lepak et al., 2007, p. 188). The existence of an isolating mechanism, or resource position barrier (Wernerfelt, 1984) attempts to prevent value leakage to non-creators and are thus important in creating the ideal of sustainable competitive advantage (Barney, 2002). In other words, isolating mechanisms create a form of bargaining power that can be used to keep or extract value. For example, these mechanisms may include intellectual property and patents (Subramani & Venkatraman, 2003), skilled employees (O'Cass & Sok, 2013), trade legislation and barriers (Chatain & Zemsky, 2011), branding (Vlachos, 2014), customer loyalty (Persson & Ryals, 2010), and asset and location specificity (Williamson, 1979). From a value chain view, key isolating mechanisms from the literature include buyer-supplier relationships (Lindgreen, Hingley, Grant, & Morgan, 2012), the firm's position within a supply chain (Gereffi et al., 2005; Yan et al., 2017), and the supply chain network structure as a whole typology (Hearnshaw & Wilson, 2013).

The quality of a relationship between supply chain members can act as an isolating mechanism, as they are not easily replicated nor broken. Lages et al. (2005) suggest that relationship quality reflects the overall 'strength' of a relationship, and Palmatier (2008, p. 22) states that relationship quality encompasses "…the diverse interaction characteristics required to create high-calibre relational bonds". Collaborative relationships are preferred not only to create value, but often to retain value as well (Wagner et al., 2010). However, when collaboration is exaggerated, opportunism may arise within the relationship, also known as the 'dark side' of collaboration (Villena, Revilla, & Choi, 2011) whereby, one side of the dyad is creating value and the collaborative partner then seeks to extract more rent through opportunistic behaviour. The logic of relational exchange would suggest that in the case of high quality relationships, aggressive value capture efforts are decreased when relationship satisfaction is present (Wagner et al., 2010).

A firm's unique position within a supply chain network, such as a key node linking diverse network communities (Hearnshaw & Wilson, 2013), can act as an effective isolating mechanism. These key nodes perform important roles such as information exchanges, knowledge transfer points and long-distance links from markets to producers (for 'small world' properties, see Watts & Strogatz, 1998) and can either reduce, or leverage information asymmetry for the wider network. Indeed, the unique nature of key dyadic relationships, especially relationships involving the exchange of specialist skills, knowledge and assets has a significant effect on value capture (Kang et al., 2007). Moreover, (Barney, 2002) argues that resources can be isolating mechanisms themselves, particularly when they meet the criteria of being valuable, rare, inimitable and able to be deployed by the organisation. In addition to the exchange of resources, dyadic power-dependence ratios also act as isolating mechanisms within relationships (Cox, 2004). Clarke (2000) argues that those holding the power are generally able to capture greater value through negotiations, especially at the retail end of value chains. However, Lindgreen et al. (2012) propose that it is also equally logical for all parties to forgo immediate value capture in order to build relationships in the anticipation of future exchange and lower transaction costs.

Indeed, if isolating mechanisms identify how firms can enhance value capture, and frictions highlight the barriers to this capture or leakage, there is a need to explore what management mechanisms firms use to capture the created value.

2.3.2.2 **Value Capture Mechanisms**

Aligned Incentives within the supply chain are important for the value delivery to the end customer, as misalignment exacerbates the issue of frictions (Chatain & Zemsky, 2011), and causes value destruction within the chain through problems such as excess inventory, stock-outs, poor forecasting, and inadequate sales efforts (Narayanan & Raman, 2004). Additionally, Scherpereel (2006) argues that misalignments result in decision errors and that these should be corrected through realignment. Agarwal, Croson, and Mahoney (2010) suggest that there are two main categories of incentive: economic and communication, while Narayanan and Raman (2004) offer three solutions to encourage redesign or alignment: rewriting contracts, revealing hidden information, and developing trust. Here it is argued that contracts (including pricing strategies) and normative behavioural controls act as key value capture mechanisms.

Contracts are key coordination mechanisms. Formentini and Romano (2016, p. 744) suggest that in order to create a win-win situation, contracts should have two properties: “…first, contracts should enable each participating actor to obtain a higher profit; second they should increase the overall profit for the entire supply chain”. Various strategies exist within this stream of literature to capture value. First, is a concentration on the contracts that actors hold with upstream stuppliers and are generally based upon product quality considerations (Cooper & Yoshikawa, 1994; Hines, Bailey, & Francis, 2006). Second, the downstream contractual literature focuses on developing pricing strategies for sales (Hinterhuber, 2004).

The pricing strategies mentioned above tend to disregard the second property of win-win contracts: increasing the overall profit of the supply chain. Other researchers such as Giannoccaro and Pontrandolfo (2004) advocate for revenue sharing contracts where both actors are risk neutral, and the supplier offers the buyer a discounted price in return for a fixed quota of the buyer's revenue. In extending the dyadic view to the supply chain (extra-dyadic) van der Rhee, van der Veen, Venugopal, and Nalla (2010) champion the use of spanning revenue sharing contracts. This is where one contract is used to coordinate the chain, and the most downstream organisation acts as the pricing process-owner and compensates other actors in terms of shared revenue. However, as this is not a well-researched area and further empirical research is needed, particularly into the operationalisation of the concept where power is lost to downstream actors in the chain.

It has been noted that normative behavioural factors such as relationship satisfaction, can reduce aggressive efforts by firms to capture value, and discourage opportunistic behaviour and coercive power use. This is especially the case when firms adopt a long-term orientation as moral controls are implemented in the business relationship (Joshi & Campbell, 2003). Informal mechanisms, such as relational norms and joint actions, help to maintain and enhance relationships based upon common goals and objectives (Heide & John, 1992; Wang & Wei, 2007). Additionally, informal mechanisms allow firms to generate relational rent and "…leverage resources and knowledge of customers and suppliers" to reduce transaction costs, co-create value, and achieve a greater competitive position (Cao & Zhang, 2011, p. 163).

Mechanisms such as trust, commitment, joint action, and cooperation become key safeguards against value exploitation of relationship-specific investments, whereas formal contracts become difficult to create and maintain due to their inflexibility and associated costs (Dwyer et al., 1987). Wang and Wei (2007, p. 650) suggest that "…trust requires partners to perceive each other as trustworthy, and willingness to forgo opportunistic behaviour". As relationships between firms develop at the management level, Gulati, Wohlgezogen, and Zhelyazkov (2012) suggest that over time honesty between managers can solidify personal bonds and promote trust that can become institutionalised over time as inter-organisational trust. Additionally, Morgan and Hunt's (1994) trust-commitment theory suggested that commitment and trust lead to cooperative behaviours that promote marketing success, rather than a firm's use of coercive power in order to condition and control the value capturing actions of others. Joint action requires parties to carry "…out the focal activities in a cooperative or coordinated way" (Heide & John, 1990, p. 25) and helps to improve participative management of the relationship, as well as playing a central role in cooperative strategy (Dyer & Singh, 1998; Wang & Wei, 2007). Opportunistic behaviour is reduced and asset specific investments are safeguarded as responsibility is shared and joint decision making helps the firm to serve and protect their own interests (Subramani & Venkatraman, 2003).

While relational quality constructs such as trust and commitment feature prominently in the academic literature of collaborative value generating models, they have little bearing on managerial practice in reality. Wagner et al. (2010) found that value creation elicits positive perceptions of a relationship only when managers can claim their 'fair share' of the value created. Indeed, this review of the value creation and value capture literature has shown the area to be a multifaceted and understudied area, especially in the case in the value capture domain. Hence, whilst the review has concentrated on each of the main terms individually thus far, the following section aims to bring these together in an attempt to map the supply chain value creation-capture domain.

2.3.3 Value Creation and Capture Within a System

When considering value within a chain or system, a value chain logic espouses that the end consumer is the final arbiter of value within the system (Al-Mudimigh et al., 2004). Therefore, this should be an organisations first consideration in any attempt to serve consumer needs. The firm then creates value thorough it's various activities and produces a product offering. However, this value creation is often destroyed through frictions within the chain and value leakages to actors outside of the value chain (Chatain & Zemsky, 2011; Santos, 2012). The outcome of this then becomes the net value creation available for appropriation, and this is illustrated as an equation shown in Figure 2-6.

Gross VC value creation	-	Frictions	-	Value leakages to outside of VC	=	Net value creation available for appropriation

Figure 2-6 Net value creation equation
Source: Author

Section 2.2 has highlighted that a firms' value creation attempts are motivated by a number of drivers. The literature may be split into two main levels of analysis, namely the firm and the system levels and Table 2-8 provides a summary of these, whilst highlighting those drivers that intersect the two levels. Through a closer investigation of the drivers, it is also identified that the firm level literature has an operational focus, concentrating on improving firm activities and achieving alignment within the firm. In contrast, the systems level literature is more concerned with interactions between chain actors and the resources shared to create value. The common theme between the two levels of analysis centres on the role of adaptation and knowledge in learning, trust and commitment, and efficiency gains.

Table 2-8 A description of supply chain value creation drivers

Firm Level			
Intra firm alignment	Foerstl, Hartmann, Wynstra, and Moser (2013); Matthyssens et al. (2016); Murphy and Poist (1996)	*Innovation*	Duhamel, Reboud, and Santi (2014); Hald et al. (2009); Kühne, Gellynck, and Weaver (2013); O'Cass and Ngo (2012); O'Cass and Sok (2013)
Product utility	Agafonow (2014); Fawcett and Fawcett (1995); Lancaster (1966)		
Firm and System level			
Adaptation and learning	Hallén, Johanson, & Seyed-Mohamed (1991); Matthyssens and Vandenbempt (2008); Wang and Wei (2007); Yi, Ngai, and Moon (2011)	*Knowledge and learning*	Kang et al. (2007); Letaifa (2014); Spekman, Spear, and Kamauff (2002)
Trust and commitment	Eggert, Ulaga, and Schultz (2006); Fischer (2013); Morgan and Hunt (1994); Scherpereel (2006)	*Productivity gains*	Geiger et al. (2012); Hald et al. (2009); Kalaignanam and Varadarajan (2006)
System level			
Collaboration	Cao and Zhang (2011); Grönroos (2004); Matopoulos et al. (2007); Simatupang and Sridharan (2008); Wagner et al. (2010)	*Co-creation*	Aarikka-Stenroos and Jaakkola (2012); Aminoff and Tanskanen (2013); Flint and Mentzer (2006); Ngo and O'Cass (2009); Vargo and Lusch (2004, 2008, 2010, 2016)
Co-innovation	Bitzer and Bijman (2015); Marcos-Cuevas et al. (2016); Westerlund and Rajala (2010)	*Inter-firm alignment*	Agarwal et al. (2010); Chen et al. (2016); Eng (2005); Giannoccaro and Pontrandolfo (2004); Ketchen and Hult (2007); Matthyssens and Vandenbempt (2008)
Specific assets	Geiger et al. (2012); Subramani and Venkatraman (2003)		

Source: Author

In addition to value creation drivers, this section also described a range of value creation enablers, namely; competition and isolating mechanisms. These enablers affect an actors ability to implement competitive barriers in an attempt to capture more value (Lepak et al., 2007), and are mediated by a range of endogenous and exogenous factors. Endogenous factors are those chain dynamics present within the chain because of exchange relationships, and exogenous factors are those present due to the chain operating within a wider environment.

When the described factors are taken into consideration, Figure 2-7 provides a conceptual illustration of value creation and capture processes within a system. Firms are motivated to create value both at the internal and system level, and this can be distilled into a number of variables. The level of value that the firm is able to create is enabled by competition heterogeneity and the isolating mechanisms available. However, value is also leaked to actors outside of the product channel and to the wider society, and the value capture of the chain is mediated by a range of endogenous and exogenous variables. The outcome of this is the resultant value creation and capture. It is evident from Table 2-8 that value creation is generally understood, however there is still some way to go in fully understanding value capture. This is particularly true when investigating the concept beyond the firm, looking to the supply chain or network; especially when considering isolating mechanisms and contracts. The theoretical foundations of both are based within organisational, economic and behavioural paradigms, and the proceeding section explores these in more depth.

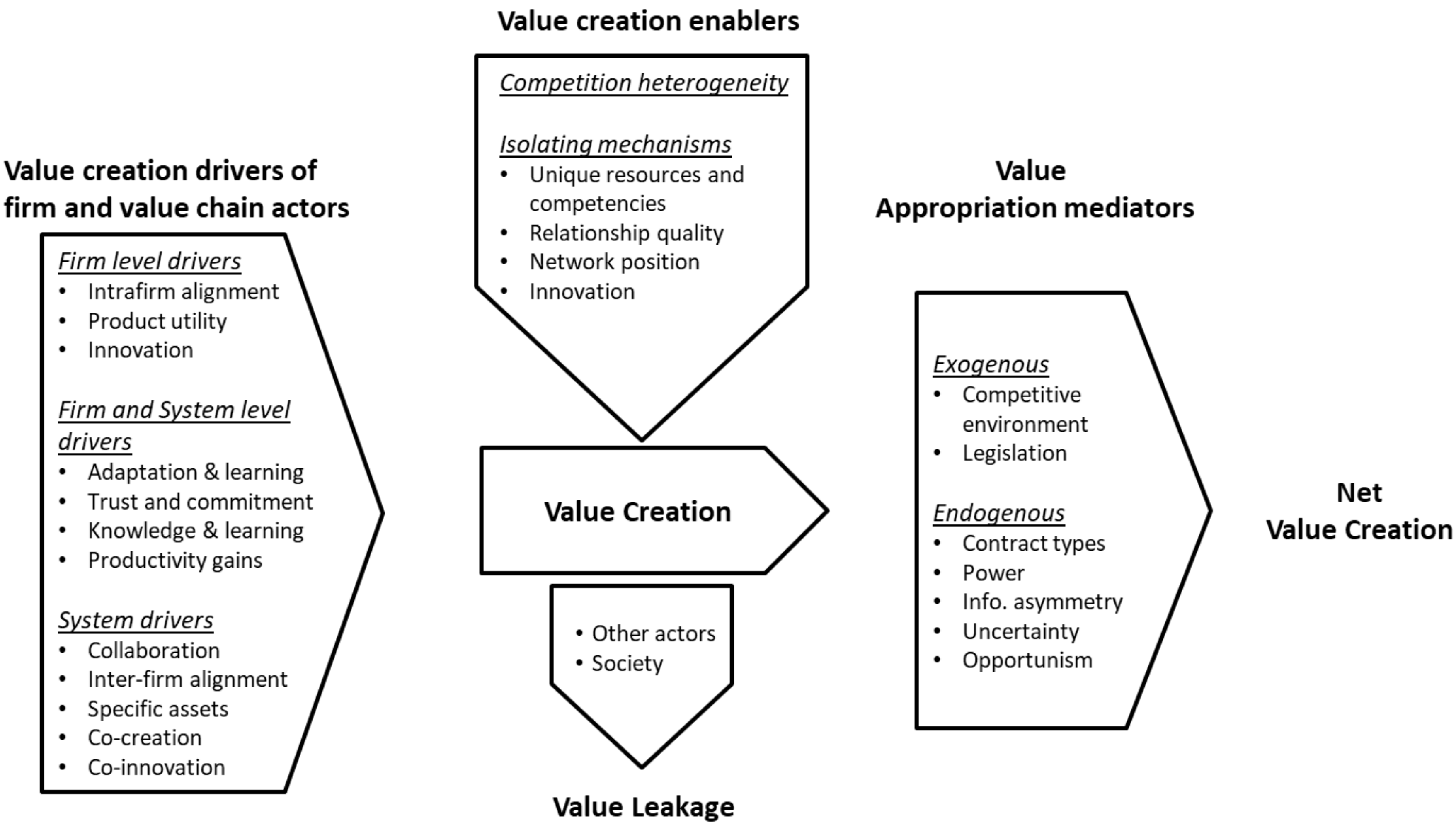

Figure 2-7 A conceptual map of value creation and value capture within a system
Source: Author

2.4 Summary

This chapter has explored the governance of value creation and value capture in supply chains through the adoption of a metatriangulation approach to review the extant literature. This approach showed that from a theoretical point of view, S-D logic has a promising application in the field of supply chain management, but has not been applied sufficiently in this area thus far. Additionally, the RBV lacks empirical research in terms of its application to the supply chain level, as much of the current literature is concerned with the firm as a unit of analysis. This research adopts the view of Barney (2012); Hunt and Davis (2008); and Priem and Swink (2012) that suggests the chain itself may be a source of competitive advantage. Given these gaps in the literature, and the similarity between S-D logic and RBV in terms of a focus on resources, this researcher will continue to include the RBV paradigm in the research model presented in the proceeding chapter.

It was found that while value creation is well researched, the literature surrounding the mechanisms for value capture is less developed, especially in terms of spanning the organisational boundaries of firms. This issue of boundary spanning was a key theme in much of the literature, with the vast majority of research adopting the firm or the dyadic relationship as a unit of analysis. It is clear that more research is needed in understanding value creation and capture at the system level.

Finally, this literature review has highlighted a number of attributes that may assist value chains to deliver greater value to the end customer, and distribute value capture upstream to value creators in an equitable manner. For example, market orientation was noted as important in the ability of a chain to respond to the needs of the final consumer and impact upon customer satisfaction (Grunert et al., 2005). These attributes will be espoused further in the following chapter that acts an extension to the current review to provide a more in-depth explanation of identified attributes and uses these as a foundation for the research framework of this study.

Chapter 3

The Operationalisation of Value Creation and Capture in a Value Chain

3.1 Introduction

The previous chapter highlighted the importance of creating and capturing value through the governance of a supply chain as a consequence of forced interdependencies between firms (Coase, 1937). The implemented governance structure both within and between firms is selected based on a number of variables such as certainty, frequency and asset specificity (Williamson, 1985). The current chapter acts as an extension of the literature review, and presents both a number of value chain attributes important in creating and capturing value, and a conceptual framework to guide this research. The identification and operationalisation of the attributes is important as it enables the collection of data and aids the data analysis phase of research.

Drawing from the literature review and the adoption of 'value chain thinking', section 3.2 develops the generic value chain attributes that are used for the research phase of this study. In essence, to be able to deliver value to the end consumer it is important to understand key attributes that create and capture value. Consequently, five primary antecedents of value creation and capture are introduced, and a further three supporting attributes are also identified. It is by examining how these value chain attributes are deployed both internally and externally through the decision framework of the conceptual model that a better understanding of network governance is derived.

Section 3.3 introduces the conceptual framework of this study, developed in a stepwise fashion to highlight the decision making for both the internal firm and the inter-firm governance choices. This is grounded in the theory presented in the previous chapter, and utilises Value Theory, Transaction Cost Economics, Agency Theory, Resource-Based View, and Resource Exchange Theory. Further, an aim of the study is to take a wider chain view and consequently, Network theory becomes implicit within the framework as a multi-level view may be taken.

3.2 Value Chain Attributes

The previous chapter highlighted a number of reoccuring attributes that researchers propose to be important to value generating activities. Specifically, five core attributes have been identified from the literature and are adopted in this study for further investigation. Specifically, to embody the view that the final consumer is the arbiter of the value chain, adopting a *market orientation* across the supply chain results in firms looking to the end customer (Grunert et al., 2005). This presents a number of challenges, as a market orientation requires gathering market intelligence, dissemination and responsiveness (Kohli & Jaworski, 1990). Hence, the sharing of information and aligned incentives are important. *Information sharing* improves a firm's ability to respond to changing demands and improves operational efficiencies such as avoiding excess inventory and better coordination (Chatfield, Kim, Harrison, & Hayya, 2004). *Aligned incentives* involves an element of information sharing, but goes beyond this. When incentives are misaligned value may be destroyed through decision errors and local optimisation decisions that negatively impact other parts of the supply chain (Scherpereel, 2006). Reducing these errors results in behaviour that is consistent with the overall value chain objectives (Simatupang & Sridharan, 2005).

A key question to ask is 'who decides and/or coordinates the direction of the chain vision'? *Channel leadership* seeks to answer this through understanding how the chain is coordinated. An important aspect of this leadership is power. The actor who holds this may exercise coercive or non-coercive forms of power, affecting the actions and satisfaction of other chain members (Hunt & Nevin, 1974). However, it is also useful to investigate *integrated network governance* that may exist within the value chain. This emerges out of relationships between actors and is important to explore as the effort expended by partners is a key driver of the management of relationships (Soosay & Hyland, 2015).

The previous chapter highlighted that the extant literature consistently viewed the main attributes as crucial in the consideration of value. However, a number of supporting attributes, or second-tier attributes were also identified. The first attribute of *value co-creation* is most likely to be considered at the dyadic level as it involves the sharing resources. The literature review iterated the importance of firms building relationships and engaging in collaborative activities to achieve both tangible and intangible outcomes. Creating new knowledge and developing capabilities through interactions with other firms is one way to deliver a superior value offering to the final customer (Ngo & O'Cass, 2009).

A second supporting attribute to consider is *resilience*. This is likely to be mainly considered at the internal firm level as it affects business continuity. Firms operate in a complex and dynamic environment, and being able to adapt to environmental changes and shocks is one driver of longevity

(Christopher & Peck, 2004). Finally, *brand ownership* is considered in this research. This attribute is considered a supporting attribute, and while important for all chain members to consider, it is mainly a strategic issue of the channel captain. However, brand ownership is particularly important in the context of agricultural chains for two reasons. The first is that there is often a powerful gatekeeper present in agribusiness chains (Konefal et al., 2005). Second, in the case of food products, there are usually emotional, safety, and nutritional interests for the end consumer (Dagevos & van Ophem, 2013). Brand ownership hence, provides a way for value chains to communicate their 'story' with the final consumer and to help mitigate the power that the gatekeepers hold through producing a value-added product, rather than a commodity. A summary of attribute definitions may be found in Table 3-1. Expanding upon this brief explanation of each of the value chain attributes, the remainder of this section presents the value generating logic of each, leading to a series of propositions that will guide this research.

Table 3-1 Definition of the value chain attributes used in this research

Main Attributes:	
Market Orientation	"…chain members' generation of intelligence pertaining to current and future end-user needs, dissemination of this intelligence across chain members, and chain wide responsiveness to it" (Grunert et al., 2005, p. 430).
Information enrichment/sharing	The sharing of information and knowledge between chain entities (Matsuno et al., 2005).
Aligned incentives	A fair distribution across the chain of the risks, costs, and rewards of doing business (Narayanan & Raman, 2004).
Channel leadership (power)	"A member of a marketing channel assuming a leadership role in organising the system in order to lessen conflict, achieve economies of scale and maximise business impact" (Monash University, n.d).
Network governance	"Coordination characterized by informal social systems rather than by bureaucratic structures within firms and formal contractual relationships between them – to coordinate complex products or services in uncertain and competitive environments" (Jones et al., 1997, p. 911).
Supporting Attributes	
Value co-creation	The creation of value via cooperative or collaborative arrangements between business entities (Wagner et al., 2010).
Resilience	The ability of a chain to operate in an uncertain environment, absorb shocks, and to return to equilibrium after a disturbance (Christopher & Peck, 2004).
Brand ownership	The control of brand equity, or "…the sum of customers' assessments of a brand's intangible qualities, positive or negative" (Rust, Zeithaml, & Lemon, 2004, p. 112).

Source: Author

3.2.1 **Market Orientation**

Market orientation refers to the mental models held by decision makers in the value chain and when conceptualised, may be defined from either a cultural, or behavioural perspective. One definition of a cultural stance of market orientation is "…the organization culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers, and thus, continuous superior performance for the business" (Narver & Slater, 1990, p. 21). A market orientation consists of a customer orientation, competitor orientation, and inter-functional coordination (Deshpande, Farley, & Webster, 1993). However, the issue with this particular definition is that the unit of analysis is the firm, rather than dyadic exchange, or the network.

A behavioural perspective of market orientation suggests that the construct is comprised of market intelligence generation, dissemination, and responsiveness (Kohli & Jaworski, 1990). Whist the concept was originally developed to describe a firm's strategic orientation, more recently it has been expanded to the supply chain. This may be defined as "…chain members' generation of intelligence pertaining to current and future end-user needs, dissemination of this intelligence across chain members, and chain wide responsiveness to it" (Grunert et al., 2005, p. 430). Intelligence generation is concerned with market research and gaining more information about consumer markets. This may be done by the lead firm or, in collaboration with the supply chain network to create joint intelligence across organisational boundaries (Elg, 2002). Intelligence dissemination is important for firm performance as the objective is to integrate improved knowledge of consumer wants and needs into activities, and collective responsiveness also aids in this as activities are better coordinated to respond to these needs and wants (Grunert et al., 2005).

More recently, some researchers have adopted an integrated view of the concept. This perspective suggests that when a market orientation is adopted the different organisational functions should aim to gather and disseminate information around consumers and the competitive environment. Therefore, functions should respond in a manner consistent with the gathered information (Bigne & Blesa, 2003). Further, it is suggested that firms should have both a cultural orientation and a set of processes and tools to foster creation and incorporation of knowledge (Jiménez-Zarco, Martínez-Ruiz, & Izquirdo-Yusta, 2011). When applied to a chain level, this view would suggest that better integration is achieved when the chain culture and activities of members are aligned with each other. Hence, it is at this point that the market orientation and supply chain management literature intersect.

The integration of a market orientation and supply chain management may be seen in the different types of supply chains conceptualised by researchers. One of these is the demand chain, where there are two main conceptual perspectives. The first is that management of the chain is a "… set of practices aimed at managing and co-ordinating the whole demand chain, starting from the end customer and working backward to raw material suppliers" (Selen & Soliman, 2002, p. 667). The second is that the supply chain and demand chain are distinct terms, where both are seen as a subfield of supply chain management. Here, the aim of demand chain management is not the management of the entire chain from the customer to raw materials, but rather the integration of the demand chain and supply chain (Bustinza, Parry, & Vendrell-Herrero, 2013; Jüttner, Christopher, & Baker, 2007; Santos & D'Antone, 2014).

In addition to types of supply chains, some researchers have suggested a migratory or evolutionary progression of strategy as chains shift from product driven towards customised leagile[3] supply chains (Christopher & Towill, 2000). In this perspective (summarised in Table 3-2), there is a move from mass production towards mass customisation, each progression requiring a greater focus on customer needs. This is particularly evident in the performance metric shift from stock turns and product cost, to customer satisfaction and value added. Researchers suggest that to achieve this change there must be an integration of operations, alignment of supply chain strategy with the product offering, and effective management of value streams (Childerhouse & Towill, 2006).

Table 3-2 Migratory model of supply chain evolution

	Evolution Phase			
	1	**2**	**3**	**4**
SC philosophy	Product driven	Market orientated	Market driven	Customer driven
SC type	Lean functional silos	Lean supply chain	Leagile supply chain	Customised leagile supply chain
Performance metrics	a) Stock turns b) Production cost	a) Throughput time b) Physical cost	a) Market share b) Total cost	a) Customer satisfaction b) Value added

Source: Adapted from Christopher and Towill (2001, p. 212)

In the above explanation of market orientation, one of the key outcomes is the increase in performance due to integration spanning beyond the firm boundary. This can be explained in the

[3] Leagile/leagility: combination of the lean thinking and agile manufacturing paradigms. See Naylor, Naim, and Berry (1999) for more detail.

context of firm performance. A 2011 review found that of those studies that examined the direct impact of a market orientation on firm performance, the overwhelming majority found a strong positive link between the two (Liao, Chang, Wu, & Katrichis, 2011). Additionally, a market orientation is often correlated with learning (Mavondo, Chimhanzi, & Stewart, 2005; Santos-Vijande, Sanzo-Pérez, Álvarez-González, & Vázquez-Casielles, 2005) and innovation (Aldas-Manzano, Küster, & Vila, 2005; Im, Hussain, & Sengupta, 2008). It has also been suggested that learning facilitates competency development, and coupled with innovation, an understanding of customer needs leads to better serving the market through new product development (Søndergaard, 2005). Interestingly however, a more recent study found that a market orientation has a stronger positive relationship with organisational performance than a learning orientation as argued by Farrell, Oczkowski, and Kharabsheh (2008). This suggests that a market orientation is a key factor in creating value, and hence it is proposed:

P_1. Value creation and value capture are facilitated by a market orientation.

3.2.2 Information Enriched Value Chains

Due to the significance of information sharing within the market orientation literature and the wider supply chain research field, it is important to consider information enrichment in value creation and capture. Based upon the above attribute of market orientation, three major information flows can be determined: (1) the dissemination and *communication of the value proposition* to the consumer; (2) the *dissemination of market intelligence* of consumer credence attributes and preferences; and (3) the dissemination of *operational information* (planning, forecasting and physical distribution) that coordinate the day-to-day activities of the value chain. There is an abundance of research that suggests information sharing has positive impacts on the supply chain, relevant to all three information flows. This may be seen in Table 3-3.

Table 3-3 Benefits of information sharing

Information Flow	Benefit	Authors
Market intelligence	Improve product design	Kim, Manley, and Yang (2006); Petersen, Handfield, and Ragatz (2005); Shamsuzzoha, Toscano, Carneiro, Kumar, and Helo (2016)
	Aid in knowledge development	Hult, Ketchen, and Slater (2004); Xu, Li, and Zhou (2019)
	Respond to market signals	Gebhardt, Farrelly, and Conduit (2019)
Operations	Efficiency and effectiveness	Li, Lin, Wang, and Yan (2006); Prajogo and Olhager (2012)
	competitiveness	Carr and Kaynak (2007); Huo, Zhao, and Zhou (2014)
	Reduce the bullwhip effect	Chatfield et al. (2004); Susan Cohen, Lee, and Ofek (2004)
Consumer communication	Customer satisfaction and profitability	Mulhern (1999); Reinartz, Krafft, and Hoyer (2004); Rust, Lemon, and Zeithaml (2004)

Source: Author

The efficacy of information sharing is largely determined by governance structures, quality regulations, economic power, and relationship type (Denolf, Trienekens, Van der Vorst, & Omta, 2015). This particular assertion is consistent with other literature that proposes information sharing as a key antecedent for collaborative relationships as it promotes visibility (and symmetry), aids relationship satisfaction (Cheng, Chen, & Chen, 2013), and helps to reduce the risk of opportunistic behaviours. Value chains operate in an information rich environment whereby there is a high level of awareness of the value proposition and consumer credence attributes by actors along the VC. Therefore, opportunistic behaviour is reduced and relationship satisfaction improved, as information sharing acts as a deterrent to unethical behaviour within networks, grounded within social contracting (Eckerd & Hill, 2012). Further, symmetrical information sharing promotes visibility, which drives innovation, product/market development, investment decisions and governance arrangements within the chain (Jiménez-Zarco et al., 2011). Hence, it is proposed:

> **P_2.** Network governance that promotes high levels of information visibility and symmetry at each level of the value chain will increase in-market value creation and capture.

3.2.3 Incentive Alignment

Incentives are important in terms of aligning behaviours and objectives within the value chain and in agribusiness value chains these may be categorised as three groups; economic, regulatory/legal, and human capital (Hobbs, 2003). Economic incentives are derived from higher profits through greater revenue and/or reduced costs (Brandenburger & Stuart, 1996) that relate to enhanced food safety and products features that command a price premium in the marketplace. Regulatory incentives are put into place by government and policy makers in an effort to force firms to internalise spill-over effects and bear the burden of social costs. These include incentives such as changes to property rights, subsidies, and liability changes in an effort to incentivise risk reduction strategies associated with issues such as food safety and environmental protection (Hobbs, 2003). Finally, human capital incentives refer to skills and building of knowledge. This is grounded in Resource-Based View of the firm and refers to firms developing their core competences and gaining access to codified and tacit knowledge within the value chain that would otherwise be unreachable (Teece et al., 1997). Hence, value chain incentives can be driven by economic, regulatory and resource drivers and aligning these to value outcomes is crucial in delivering value to the end customer.

When there is a misalignment of incentives, the effect of frictions is exacerbated (Chatain & Zemsky, 2011), and causes value destruction within the chain through problems such as excess inventory, stock-outs, and poor forecasting (Narayanan & Raman, 2004). Other researchers argue that misalignment results in decision errors that should be corrected through realignment (Scherpereel, 2006). Indeed, chain wide governance structures arise in response to mitigate and correct these misalignments, and Agarwal et al. (2010) suggest that there are two main categories of incentive alignment; economic and communication. In contrast, Narayanan and Raman (2004) offer three solutions to encourage redesign or alignment: rewriting contracts, revealing hidden information, and developing trust. In addition, one of the aims of adopting a VC view is to increase the overall amount of value available for capture. Therefore, the aim of incentive schemes is to produce behaviour consistent with the overall VC objectives, not just local goals (Narayanan & Raman, 2004; Simatupang & Sridharan, 2005). When a network view is taken, the encouraged behaviour is driven by the incentives put in place by those organisations with power in the chain, as they are able to influence the behaviour of other chain members and hence:

> **P_3.** The alignment of incentives through network governance will lead to better value outcomes for chain members as activities are directed towards meeting in-market demands.

3.2.4 **Channel Leadership (Power)**

The preceding chapter highlighted two main forms of decision making; shared or decentralised coordination, and centralised coordination Provan and Kenis (2008). It is argued here that in general, value chains follow a differentiation strategy (product and/or market). Therefore, it is logical to assume that this chain type will demonstrate a centralised mode of coordinating leadership, where channel policies and actions are able to be coordinated as a single entity. These firms may be called the 'channel captains' or 'leaders' (Mehta, Larsen, & Rosenbloom, 1996). It is suggested that while there are some positive aspects within a decentralised coordination model, such as individual actors retaining autonomy while still working towards a common goal, the decision making process can be complex. Given that the market place is constantly evolving, there is strength in a chain having a centralised decision making authority. Benefits accrue as a result of a centralised voice or leadership, such as a greater channel alignment to the value signals, greater efficiencies, and value creation. However, the risk of this governance mode is the loss of the democratic voice of value chain actors, and the exercise of power to enforce compliance.

The different sources of power implemented in the governance of the value chain impact upon chain relationships, and were distilled by French and Raven (1959) along two branches: coercive and non-coercive. Coercive power may involve punishment if terms are not met, whereas non-coercive sources of power involves one party influencing the other (see Table 3-4). Early results within distribution channel research around power asymmetry in relationships was ambiguous, with researchers finding that that power asymmetry in the chain had either a positive, negative, or no effect on the wielding of coercive power (Kim, 2000). However, more recently one study found that the source of power exercised by the leader is a main antecedent of trust, with non-coercive power being viewed more favourably (Jain, Khalil, Johnston, & Cheng, 2014). Another study found that where power asymmetry was present, trust and commitment led to perceptions of fairness, whereas the use of control mechanisms by more powerful firms was viewed as unfair (Brito & Miguel, 2017). In this sense, firms seek to build trust and commitment into the relationship in an effort to reduce the use of coercive power by more powerful partners. Hence, when considering both the governance type and sources of power, it is proposed that:

> **P_4.** Value chains that have a lead organisation who use non-coercive sources of power achieve greater value outcomes through centralised decision making, and improved collaboration.

Table 3-4 Sources of power

Type of power	Definition	Expression
Coercive	Power based on the anticipation of the part of *x* of possible punishment by *y* if he fails to yield to the influence attempt	Punishment
Reward	Power based on the belief by *x* that *y* has the ability to mediate rewards for him.	Gifting
Expert	Power based on the extent of knowledge which *x* attributes to *y* within a given area.	Sound judgement
Legitimate	Power originating from internalized values in *x* which dictate that *y* has a legitimate right to influence *x* and that *x* is obligated to accept the influence.	Hierarchy
Referent	Power based on the identification of *x* with *y* where identification means a feeling of oneness or a desire for such an identity.	Identity / belonging

Source: Adapted from Hunt and Nevin (1974, p. 187)

3.2.5 Integrated Network Governance Models

Value chains often consist of integrated governance models based on collaborative protocols, and arise out of the dyadic and network relationships of many actors (Soosay & Hyland, 2015). These contain both enforcement mechanisms to ensure compliance and mitigate self-interested behaviours (Stump & Heide, 1996), and facilitation mechanisms to promote joint action, reciprocity, and collaborative behaviours (Matopoulos et al., 2007). This was highlighted in Chapter 2, Section 2.2.2.3 where it was noted that dyadic governance arrangements may be classified along a continuum ranging from pure spot markets through to vertical integration. The levels of interdependence, information exchange, mutuality, risk and reward sharing, trust and commitment, and long-term orientation increases as the collaborative/relational content increases (Pilbeam et al., 2012). In contrast, system level arrangements could be viewed structurally or sociologically.

Relationship types are useful to note, as the effort expended in maintaining and enhancing the partnership is important in the management of the relationship (Mohr & Spekman, 1994). Based upon the proceeding literature review (section 2.3.1), two relationship approaches of value creation and capture are identified. First is a value co-creation relationship, whereby co-creation firms create and capture value in joint relationships. These tend to be tactical in nature and combine knowledge, resources, and skills to achieve higher profits than could be realised by working independently (Enz

& Lambert, 2012). The second is a higher order relationship that tends to have a strategic, longer-term focus and is developed on the premise that the collaborative relationship interaction itself co-creates additional value for both the customer and the supplier when applied along the value chain (Grönroos, 2004).

Managers hoping to enhance relationship value often work towards more collaborative forms, whereby "…both business markets and consumer markets benefit from attention to conditions that foster relational bonds leading to reliable repeat business" (Arndt, 1979, p. 72). However, this is not to suggest that arms-length transactional exchange should be avoided, as these exchanges are indeed appropriate for non-critical and non-differentiated exchanges (Williamson, 1979). However, in the case of market oriented chains the literature notes that spot market contracts were rarely used, suggesting that a certain level of integration is a conditional factor of market orientation (Trienekens et al., 2017). One key issue for this research is attempting to understand collaboration as a mechanism for chain wide or network governance, and hence, it is proposed:

> **P_5.** Network governance arrangements based on the collaborative protocols of common goals facilitate value creation and value capture.

The initial five value chain attributes proposed in this chapter section work synergistically to aid in value creation and capture activities of the supply chain. The adoption of a market orientation strategy ensures that there is a focus upon the final consumer within the chain, and that market intelligence is gathered, disseminated, and actioned upon. Information sharing among actors aids in chain visibility and creates improvements in areas such as the product offering, operational activities, and customer profitability. The response to consumer demands and the need to share information is aided by incentives that act to align the activities of the value chain to improve value creation and competitiveness, and reduce frictions. Finally, the implementation of the first three attributes is guided by the use of power and governance structure (centralised/decentralised) within the chain. A summary of these attributes may be seen in Table 3-5 where the logic of each attribute and its associated propositions are highlighted. Following this, three additional supporting attributes important to value creation and capture efforts have been identified based upon the literature review of Chapter 2, and are presented in the proceeding section.

Table 3-5 Summary of main attributes

Attribute	Logic	Associated proposition
Market Orientation	Market orientation refers to the mental models held by decision makers in the value chain (Grunert, Trondsen, Campos, & Young, 2010), and the extent to which these actors use market intelligence, especially about the end consumer, to influence their value generating activities, known as 'visibility of preferences' (Bustinza et al., 2013). The higher the chain awareness of consumer preferences, the greater the ability to generate and capture value.	**P_1.** Value creation and value capture are facilitated by a market orientation.
Information Sharing	The lower the level of information asymmetry in the value chain, the lower the risk of opportunistic behaviours, leading to greater value creation potential. Value creating chains operate in an information rich environment displaying high levels of awareness of the value proposition and consumer credence attributes by all participants all along the value chain. This visibility then drives innovation, product/market development, investment decisions and governance arrangements (Jiménez-Zarco et al., 2011). Those who hold the information in the value chain are best placed to capture value.	**P_2.** Network governance that promotes high levels of information visibility and symmetry at each level of the value chain may in-market value creation and capture.
Incentive Alignment	Value chain incentives can be driven by economic, regulatory and resources issues and aligning these to value outcomes is key to value delivery to the end customer. Conversely, misalignment of incentives exacerbates the issue of frictions (Chatain & Zemsky, 2011), and causes value destruction within the chain. The higher the level of incentive alignment to consumer preferences by all actors in the chain, the greater the potential value generation.	**P_3.** The alignment of incentives through network governance will lead to better value outcomes for chain members as activities are directed towards meeting in-market demands.
Channel leadership	Value generating chains following a differentiation strategy (product and/or market) will demonstrate a centralised mode of channel leadership were channel policies and actions are able to be coordinated as a single entity, especially where non-coercive sources of power are employed. These central actors are known as 'channel captains' or 'leaders' (Mehta et al., 1996). Those value chains that have a higher degree of	**P_4.** Value chains that have a lead organisation who use non-coercive sources of power achieve greater value outcomes through centralised decision making, and improved relationships.

	decision centralisation and coordination will generate higher value.	
Integrated Network Governance	Value generating chains will demonstrate integrated governance models based on collaborative protocols (Soosay & Hyland, 2015). Governance is manifested through an array of bilateral and network relationships that act both as enforcing mechanisms to ensure compliance and mitigate self-interested behaviours (Stump & Heide, 1996), and also facilitation mechanisms that promote joint action, reciprocity and collaborative behaviours (Matopoulos et al., 2007). Thus, the higher the levels of inter-organisational collaboration, the greater the potential for value generation.	**P_5.** Network governance arrangements based on the collaborative protocols of common goals facilitate value creation and value capture.

Source: Author

3.2.6 **Supporting Value Chain Attributes**

3.2.6.1 **Value Co-creation**

Value co-creation is considered to be the first of the supporting attributes for value creation and value capture. The concept was examined in depth in section 2.3.1, and consequently, is mentioned only briefly in this section. In order to advance value creation beyond that of a single entity, firms seek to build relationships and engage in co-creating activities. As noted above, co-creation is more of a tactical activity but no less valuable in creating value. Indeed, value is co-created by the ongoing interactions between organisations within the value chain (Helm & Jones, 2010), and driven by necessity as the competitive environment forces firms to seek access to different combinations of resources from partners. Value co-creation happens between firms within a network, and can may be viewed as a combination of both 'tangible value' (such as profit and access to assets) and also 'intangible value' (such as access to new markets, knowledge, innovation and relational) (Reypens et al., 2016). Hence it is proposed that;

> **P_6.** Co-creation of value is enhanced when firms proactively seek to combine their tangible and intangible resources.

3.2.6.2 **Resilience**

Supply chains operate in an uncertain environment, and therefore it is important to business continuity that the chain is able to absorb shocks, and to return to equilibrium after a disturbance (Christopher & Peck, 2004). Value chain resilience involves pre-disturbance preparation and post event response efforts (Chowdhury & Quaddus, 2016). Adaptability is the ability to reshape the nature of the value chain in response to disruptions, disasters, changes in business imperatives and economic realities (Pettit et al., 2010). Both resilience and adaptability allow value chains to quickly adapt to changing markets and absorb disturbances with minimal disruptions. Therefore, it is proposed that;

> **P_7.** Value creation and capture is maintained through resilience to both endogenous and exogenous business disruptions.

3.2.6.3 **Brand Ownership**

When adopting a differentiation strategy, it is important that the chain demonstrates strong brand ownership and control over product, price, promotion and place activities by maintaining control as far downstream as possible, preferably to the final consumer (Herbig & Milewicz, 1995). This is to ensure that the value signals originally derived from in-market are acted upon by firms, but also communicated clearly to the end consumer in order to maximise value capture (Helm & Jones, 2010). This study adopts the view that the higher the level of control by agricultural producers, the greater the amount of value they will be able to appropriate. Indeed, a key aspect for agricultural chains is the level of consumer identification with the brand story (place, people and production) of the product and the explicit links with the producers, including a clear 'line-of-sight' (visibility and traceability) from consumer to producer (Dagevos & van Ophem, 2013). Brands are often the most valuable assets owned by a firm and that value is created not only by the brand, but through the consistently delivery of the brand promise to consumers (Helm & Jones, 2010). Often these brand promises are validated for consumers through auditing and certification schemes to ensure brand promises are real and meet relevant industry standards. Thus, it is proposed:

> **P_8.** A network governance structure that maintains brand control downstream to the end consumer insures the brand promise and value capture.

The three supporting attributes proposed in this section aid in the value creation and capture efforts of chain actors. Value co-creation is focused on improving the product offering and the development of new knowledge and capabilities. The ability of firms and the value chain to resist and adapt the changing business environment helps business continuity. Finally, maintaining brand control effectively works as an isolation mechanism. Hence, these three supporting attributes work to aid value creation, protect value creation, and ensure adequate response to changes in the business environment. A summary of these supporting attributes may be seen in Table 3-6. Following the discussion of value chain attributes, the remainder of this chapter seeks to build the conceptual framework to guide this research. The purpose of the framework is to illustrate the governance decision making that takes place within a chain in the pursuit of value creation and capture goals.

Table 3-6 Summary of supporting attributes

Attribute	Logic	Associated proposition
Value Co-creation	Firms must seek to build relationships and engage in co-creating activities as value co-creation is at the core of exchange. Value is co-created by the ongoing interactions between organisations within the value chain. Co-creation is driven by necessity as the competitive environment forces firms to seek access to different combinations of resources from partners. Co-creation of value happens between firms and within the whole network. Thus, the higher the levels of co-creation, the greater the potential for value generation.	**P_6.** When a lead firm coordinates the combination of tangible and intangible resources, co-creation of value is enhanced.
Resilience	Value generating chains are resilient to disruptions and adapt quickly to new conditions, competition and economic uncertainty. Value chain resilience is the ability of the system to absorb shocks and to return to equilibrium after the disturbance (Christopher & Peck, 2004). Both resilience and adaptability allow value chains to quickly adapt to changing markets and absorb disruptions with minimal disruptions, thus preventing the loss of value.	**P_7.** Value creation and capture is maintained through resilience to both endogenous and exogenous business disruptions.
Brand Ownership	Those value chains that demonstrate higher value generation and value capture often possess strong brand ownership and control as far downstream as possible, preferably to the final consumer. The essence is for consumers to recognise and associate demand with the agricultural producer rather than with any	**P_8.** A lead firm network governance structure that maintains brand ownership downstream to the consumer enhances the consistent delivery of brand promises.

	intermediary. It is argued that the higher the level of control by agricultural producers, the greater amounts of value they will be able to appropriate.	

Source: Author

3.3 Framework Development

Building upon the preceding chapter's discussion on value and governance, the basic logic of the proposed framework is shown as Figure 3-1. The premise is that by adopting a VC logic, the value expectations of the end customer are the first consideration of chain members in order to implement governance decisions (Fearne et al., 2012). Therefore, defined customer expectations drive the development of an appropriate value proposition of value chain members as they create and capture value through resource leveraging and production choices for product offerings (Frow & Payne, 2011). This development of the value proposition then drives the decision choices to dictate how chain arrangements are organised and managed. The intent being to restructure and/or realign the value arrangements in response to changing consumer expectations and behaviour. In addition the exogenous, or wider environment has implications upon the development of the value proposition and refers to factors such as legislation and the competitive environment that the firm and value chain operate within. Firms evaluate the value outcomes of production, and adapt or reconfigure behaviour to better meet the expectations of the final consumer. Actors within the value chain are motivated by an implicit assumption that collaborative actions and complying with value chain norms will generate greater rents for all (Madhok & Tallman, 1998). Hence, the delivery of value is not a discrete activity, but an ongoing process requiring continuous changes by the value chain as a whole.

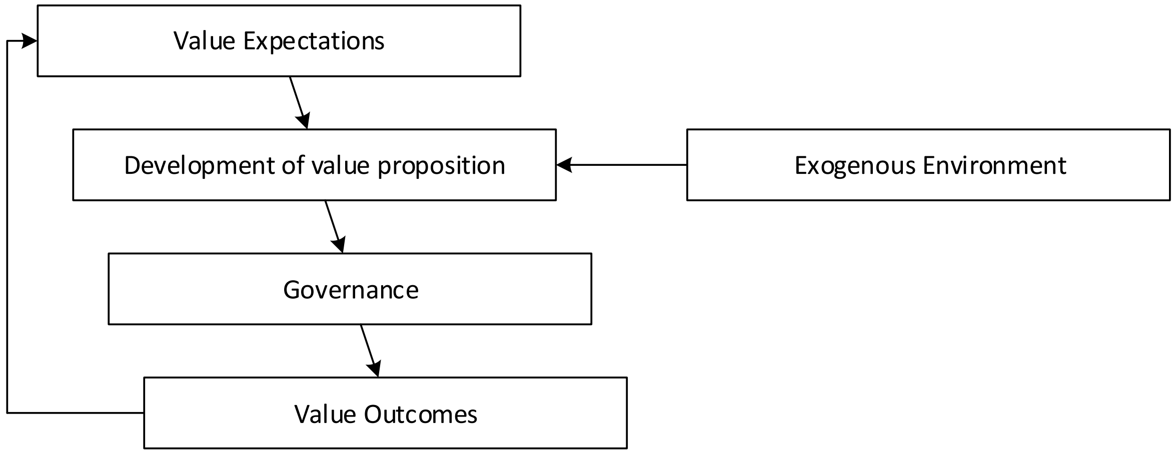

Figure 3-1 A basic decision making framework.
Source: Author

In an effort to develop an understanding of value chain governance, it is useful to examine the component parts, their role in the value creation process, and the system interactions between these parts. To achieve this, the remainder of this section develops the framework through an examination of value signals, internal firm processes, dyadic interactions, and value outcomes, before introducing a full conceptual framework in Figure 3-6. The conceptual framework highlights a focal firm's governance decision making regarding value creation and value capture. In the current study the objective is to investigate agribusiness value chains as a whole and consequently, the framework has been developed in a step-wise manner.

3.3.1 **Value Signals**

Adopting a value chain view requires a consideration of value signals from the market and the expectations of the final consumer are a key component in the development of a value proposition (Frow & Payne, 2011). However, while the final consumer is important, there are other factors exogenous to the chain such as the regulatory environment and competitive environment that firms consider when making strategic decisions (Porter, 1980). In Figure 3-2 these variables are termed 'value signals'.

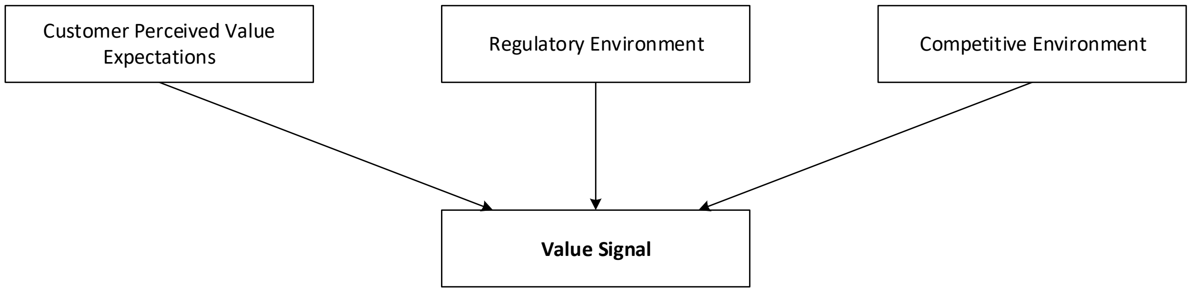

Figure 3-2 Value signal drivers of a chain
Source: Author

Customer perceived value expectations are based on customer perceived value. An in-depth explanation of this was provided in Chapter 2, section 2.3.1.1 whereby, the value expectations were the personal perception of advantage via purchase and consumption (Woodall, 2003). In contrast, the regulatory environment provides the legal boundaries within which the value chain must operate. These may act as either barriers to entry or isolation mechanisms. For example, tariffs may make entry into a particular market cost prohibitive (Sala, Schröder, & Yalcin, 2010). However, legislation such as single desk selling or customary rights may become an isolation mechanism to protect against competition (Lepak et al., 2007). Finally, the competitive environment is important to consider. This has been researched extensively in the area of strategic management and value chain analysis. Key tools in this area are the strength, weakness, opportunity, and threats (SWOT) analysis (Helms Marilyn & Nixon, 2010), and value chain analysis (Kaplinsky, 2000; Kaplinsky & Morris, 2001), whereby endogenous and exogenous factors are considered. Following research on the value signals, firms then seek to develop a value proposition.

3.3.2 **Internal Firm Processes**

Value signals help to inform the firm when making production decision and this process may be seen in Figure 3-3. Before providing an explanation of the theoretical paradigms considered here, the logic of the figure is highlighted. Value signals from the marketplace influence the development of a firm's *value proposition.* However, the internal processes and practices that a firm implements are also influenced by the *exogenous environment*. Firms exist within dynamic environments that introduce uncertainty through information and power asymmetries (Sirmon et al., 2007). The effectiveness and efficiency of firm *processes and practices* are affected by two key factors: resources and capabilities, and management. *Resources and capabilities* are employed and leveraged to exploit market opportunities can help to mitigate some of the environmental uncertainty present in the industry

(Sirmon et al., 2007). In contrast, the *management* of the firm influences a number of factors such as staff motivation and incentives (Eisenhardt, 1989), logistics, operations and purchasing (Fawcett & Fawcett, 1995).

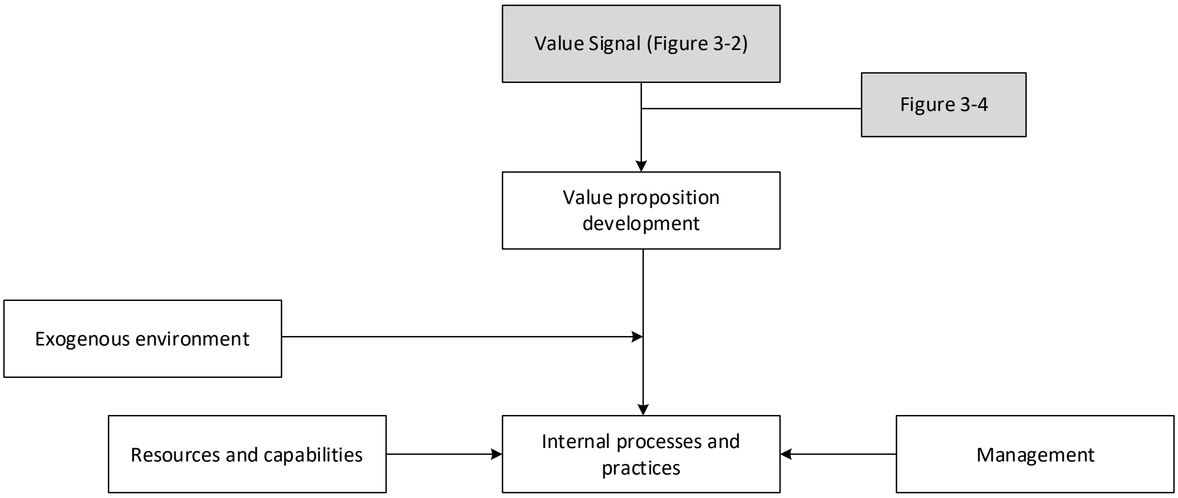

Figure 3-3 The production decision of a firm
Source: Author

In terms of the theoretical basis of the production decision, Agency Theory and the Resource-Based View are useful paradigms. The firm may be viewed as a set of contracts that oversee the way "…inputs are joined to create outputs and the way receipts from outputs are shared among inputs" (Fama, 1980, p. 290). In this sense, it is logical to assume that internal to the firm are a series of behavioural and outcome based contracts. Also present, are various incentive structures that promote a number of desired outcomes of the firm as a whole. Hence, Agency Theory has relevance to the internal governance decision making within the firm, and the ability the firm has to restructure internal activities to meet the needs of the end consumer. In contrast, the Resource-Based View is particularly helpful in understanding how firms can uniquely deploy their resources and capabilities in order to achieve value outcomes (Barney, 1991; Dyer & Singh, 1998). When Agency Theory and the Resource-Based View are combined, they aid in the ability of the firm to create value as "…the skills of top management combined with other firm assets and capabilities jointly have to potential to generate rent" (Castanias & Helfat, 2001, p. 665).

3.3.3 Dyadic Interactions

This research has previously noted the changing environment and the propensity of firms to look outside of the firm boundary to create and capture value (Mentzer et al., 2001). Hence, this study aims to look at the business interactions *between* firms and this is illustrated in Figure 3-4. As in the case of the internal firm processes, the value signals influence the value proposition and therefore, the processes and practices of the firm. However, in the case of looking to the dyad, both the exogenous and endogenous environment is considered, as is the firm's business partner. There are several theoretical foundations that help to explain this, as described below.

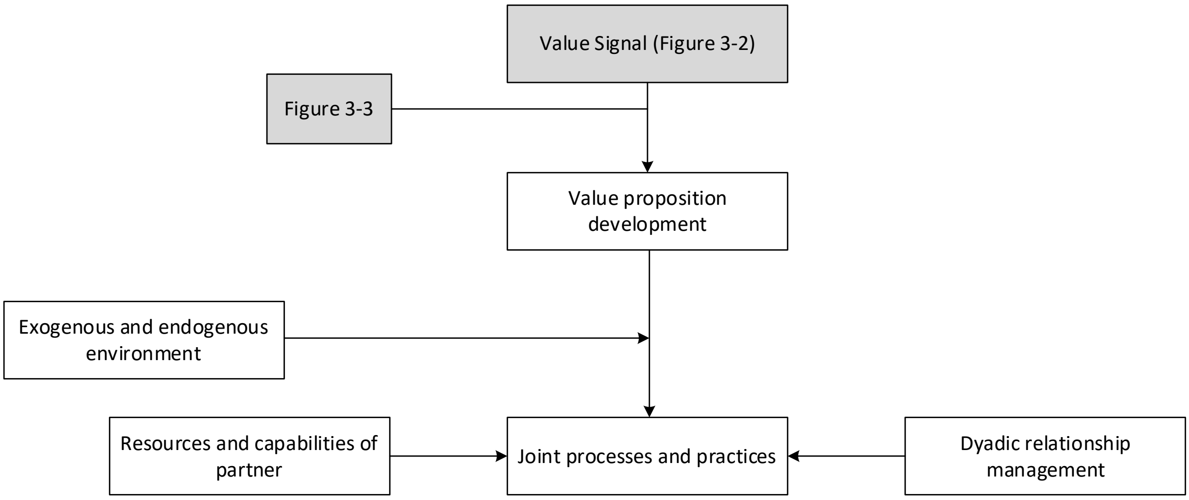

Figure 3-4 Dyadic processes and practices decision
Source: Author

A first theory to explain the relationship choices that firms make when engaging in inter-organisational exchange is Transaction Cost Economics (Williamson, 1979). The partner firm capabilities, along with the external governance drivers such as uncertainty, information asymmetry, and the regulatory environment influence the degree to which the focal firm will engage in collaborative exchange with other chain actors (Williamson, 1985). As a consequence, various forms of contracts are present between chain partners and there are a number of additional theoretical paradigms that possess explanatory power. Resource Exchange Theory examines how collaboration plays a role in value chain activities and provides a theoretical foundation for the inclusion of social characteristics entrenched within the relationships between value chain actors (Lambe et al., 2001). Further, this paradigm deals with incentives and suggests that factors such as trust and commitment work as incentives that encourage the continuation of the partnership. This is as both financial (e.g.

lower transaction costs, and greater efficiencies) and non-financial (e.g. information sharing, more joint co-creation) outcomes are created and appropriated (Cropanzano & Mitchell, 2005; Jones et al., 1997). In contrast, Agency Theory offers incentives for deliverables, supported by formal contracting arrangements (Fayezi et al., 2012).

In terms of resources and capabilities the Resource-Based View may be extended to the supply chain level (as highlighted in 2.2.1) to provide a theoretical explanation of the sharing and leveraging of resources and capabilities seen at the inter-firm and system level. It is possible not only to examine dyadic relationships, but to take a wider view and examine how as a whole, dynamic capabilities are able to be applied in the market place as the value chain attempts to build and maintain a competitive advantage (Barney, 2012; Priem & Swink, 2012). Further, from a theoretical standpoint, the inclusion of this paradigm in the current study will contribute to the literature through an examination of value chain interactions, and further support the assumption of Barney (2012), or, challenge the argument with empirical evidence.

Finally, it has been noted that firms are a part of a complex system, where the chain consists of all activities, functions, roles and organisations involved in the production, delivery and consumption of products from raw materials to final consumption and back again through reverse information flows (Hastings et al., 2016; Kaplinsky, 2000). Therefore, while the framework does not explicitly highlight the use of network theory, this logic is inherently implicit within the research.

3.3.4 Value Outcomes

Through the engagement in internal and joint processes and practices, firms will realise value outcomes, and this is shown in Figure 3-5. Firms aim to include various attributes (intrinsic/extrinsic, or search, experience, and credence) in the final product offering, and the subsequent acquisition, use, and sale of these attributes provide value to the firm, and to the final consumer. The concept of value was introduced previously in Chapter 2, section 2.3, and the current framework separates value-in-exchange from value-in-use as the buyer and seller achieve different value outcomes. The focal firm will gain an increase in value-in-use from the inputs through the transformation process, and exchange this at the point of sale for value-in-exchange. At this point, the existing value-in-use is transferred to the buyer (Grönroos & Voima, 2013).

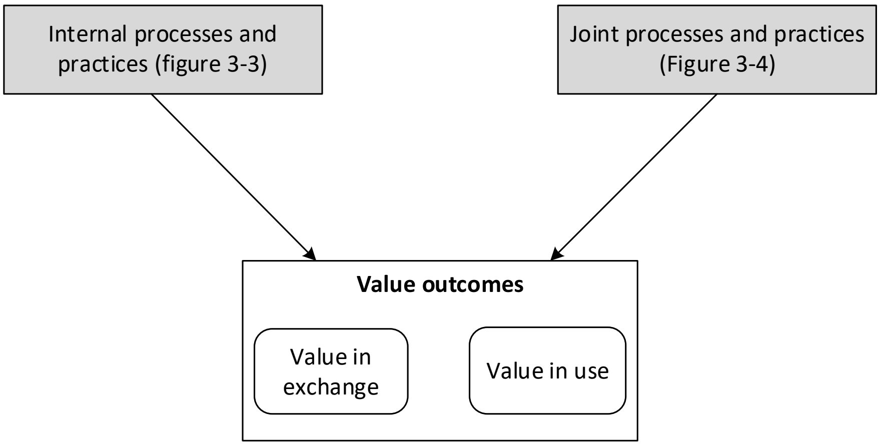

Figure 3-5 Value outcomes of a production choice
Source: Author

When value signals, internal firm processes, dyadic interactions, and value outcomes are considered holistically, a picture emerges around how value chain actors make decisions when attempting to create and capture value. Figure 3-6 below is the full theoretical model and shows the decision making cycle, as well as highlighting the inclusion of the different theoretical paradigms that have been discussed in this section and the previous chapter. The framework is iterative in nature, indicating that decisions are not discrete events, and that there is a degree of path dependence which impacts on future decisions. The basic decision making process shown in Figure 3-1 is extended, whereby the required changes, governance, and actual processes and activities of firms are separated into an internal view and an external view. This allows an analysis of value chains to take place at the firm, dyadic, and chain levels, thus providing a contribution to the dearth of end-to-end chain governance literature. In addition, it is by examining how the value chain attributes (discussed in Section 3.2) are deployed both internally and externally through the research decision framework that the data analysis will attempt to derive a view of the various forms of network governance present.

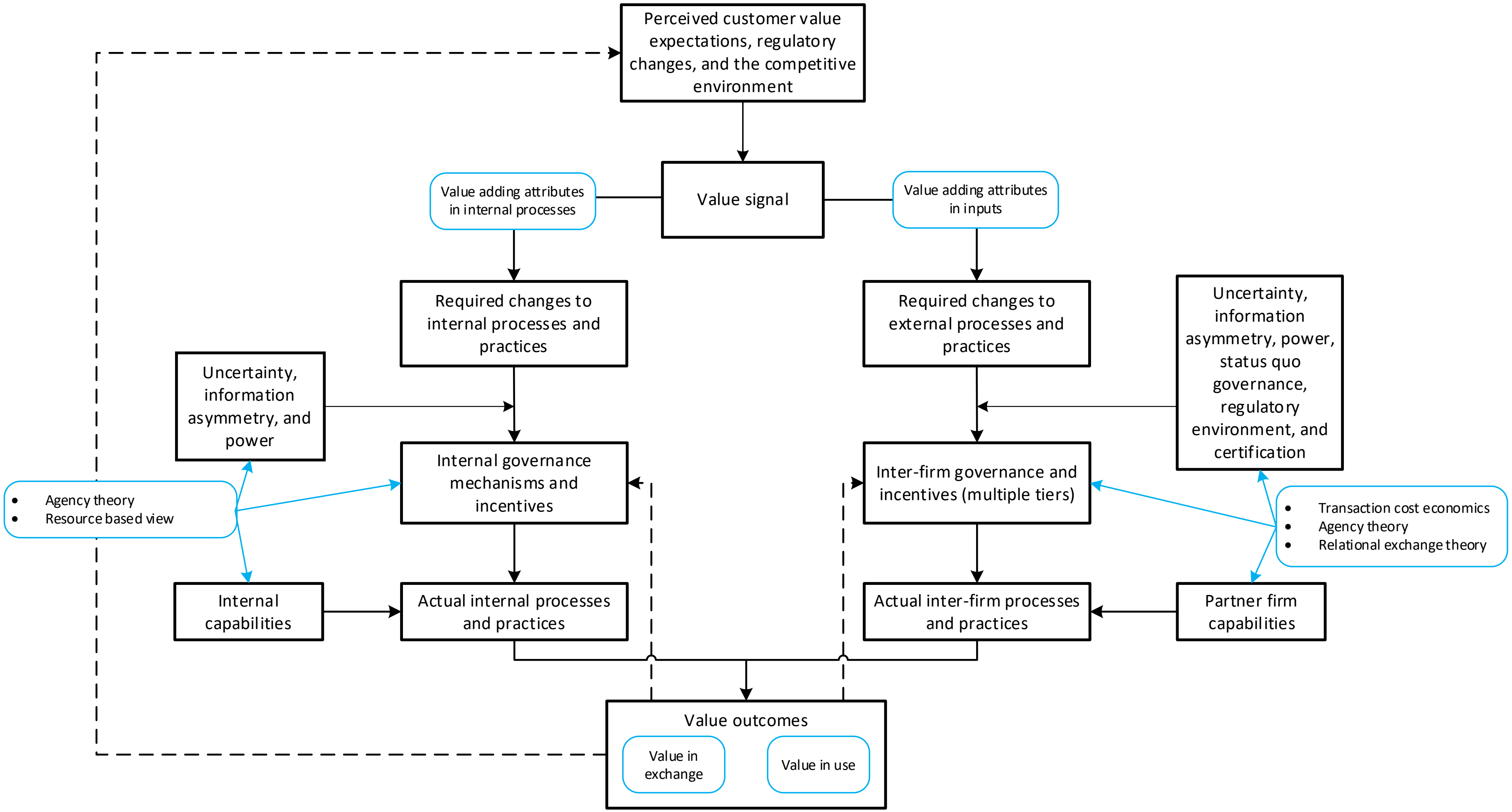

Figure 3-6 A theoretical framework of the focal firm's governance decision making framework to create and capture added value in the value chain.
Source: Author

3.4 Summary

It is evident from the both the previous, and the current chapter that that the concept of value is complex, and there is no single 'right' way in which to add and capture value. Each activity undertaken by organisations across the chain influences the value creation process, and every relationship type/structure impacts upon value capture. Hence, the way in which processes and activities at each level of the supply chain (internal, bilateral, chain, and network, see Harland, 1996) are managed is of critical importance, and this chapter explored the relationship between value creation and capture, and governance, to add to the ongoing discussion regarding chain wide governance of value chains. In terms of value creation and capture, this research proposes that improved performance outcomes may arise through the presence of five essential, and three supporting attributes of value chains.

The framework developed in this chapter highlighted that value signals trigger operational changes within the chain to deliver value to the end consumer, and these take place both within, and between organisations. The contribution of the framework is the applicability to multiple levels of the supply chain, allowing for an end-to-end chain view of governance, an area which is still underdeveloped in the extant literature. Through operationalising this framework, a study into the relationship between value creation and value capture may take place. This knowledge gap suggests that the study be exploratory in nature in order to capture the details of the interacting components of this framework, and the eight derived attributes. Hence, it is suggested that a case study would provide the rich data necessary to investigate the propositions introduced by this research. To facilitate this, the methodology for this research is outlined in the following chapter.

Chapter 4

A Case Study Method

4.1 Introduction

The preceding chapters outlined the various theories and perspectives employed in the value chain management literature to explore the issue of value creation and capture. The previous chapter explored this further through identifying those value chain attributes associated with successful value chains, and introduced the conceptual research model for this research. The current chapter outlines the research methodology employed in this study, i.e., the "…process, principles and procedures by which we approach problems and seek answers" (Bogdan & Taylor, 1975, p. 1).

It was stated earlier that the objective of this research is threefold. First, the research aims to gain a better understanding of how value is viewed by organisations. Second, the study attempts to gain an understanding of management decisions in value chains in relation to value implementation and appropriation, at both a dyadic and system level. Third, the research aims to investigate the governance of value chains at the network level. Much of the current research provides theoretical views of governance, however, this research attempts to create empirical evidence of the structures of chains able to capture price premiums in-market and successfully redistribute this back upstream to producers. In order to design a study capable of achieving this, the current chapter is set out as follows.

First, the philosophical orientation adopted for this research is outlined and the ontological and epistemological assumptions are briefly introduced, with a critical realism perspective being adopted. This is an important consideration as the paradigm adopted influences the research design of the study. Following this, section 4.3 explores the various approaches to research strategies and justifies the adoption of an explorative, qualitative case study due to the overall aims of the research. Section 4.4 describes the semi-structured interview method for data collection, and section 4.5 introduces the protocol design used in the data collection phase. The following two sections describe the process of data collection and analysis used in this research. Finally, quality considerations in regards to both ethical considerations and trustworthiness within case study research are discussed in section 4.8.

4.2 Research Paradigm

A research paradigm is a philosophical way of thinking, and is the researchers 'world view', or a collection of beliefs, values, and knowledge based upon assumptions that shape the researchers interpretation of the research data (Collis & Hussey, 2009). This is succinctly described by Denzin and Lincoln (1994, p. 99) who state that:

> *"A paradigm encompasses three elements: epistemology, ontology, and methodology. Epistemology asks, How do we know the world? What is the relationship between the inquirer and the known? Ontology raises basic questions about the nature of reality. Methodology focuses on how we gain knowledge about the world".*

The selected paradigm of the researcher is influenced by these assumptions and so it is important to understand a researcher's philosophical orientation, as it will directly influence the chosen research design. Hence, the remainder of this section briefly describes these assumptions, before exploring the paradigms of positivism, interpretivism, and critical realism, and selecting an appropriate paradigm for this research.

4.2.1 Ontological Assumption

Ontological assumption is concerned with the nature of reality and whether or not it exists independently from the researcher, and exists along a continuum with many viewing the world somewhere in between the two extremes (Morgan & Smircich, 1980). At one end, a person may hold a subjectivist approach, whereby reality is a projection of human imagination. Therefore, the reality constructed by an individual is reliant upon their intellect and experiences, and these may change over time (Collis & Hussey, 2009; Guba & Lincoln, 1994). At the other extreme, an objectivist view takes the stance that reality is a concrete structure. Hence, relationships and behaviours exist within a defined realm, and are identically observed amongst humans (Morgan & Smircich, 1980).

This researchers personal beliefs align with a subjective ontological stance and believes that this view also holds relevance in the context of this research. The perspective accepts that individuals have different world views based upon a variety of factors, and evolve as more life experiences are gained. This research aims to gain an overview of value chain structures and the attributes that contribute to value creation and capture. While the unit of analysis is not the individual, it is recognised that organisations are made up of unique and individual employees. In order to collect meaningful data it is important to investigate the differing views of value chain actors who are responsible for an aspect of management within their respective value chain.

4.2.2 Epistemoplogical Assumption

The epistemological assumption is concerned with the nature of knowledge, i.e. what is accepted as valid knowledge (Collis & Hussey, 2009). Just as in the case of the ontological assumption, the epistemological assumption has two extreme perspectives; the objectivist and subjectivist. These are known as positive epistemology and phenomenological epistemology, respectively. A researcher who adopts a positive epistemological stance believes that phenomena must be observable and measurable in order to be regarded as valid knowledge (Lincoln, Lynham, & Guba, 2018). In contrast, a researcher who takes the stance of phenomenal epistemology believes that through understanding "the process through which humans concretise their relationship to their world" (Morgan & Smircich, 1980, p. 493) knowledge is created. For this study, questions regarding 'why' and 'how' arrangements are organised in the value chain will be asked. The objective is to ask open ended questions in order to gain a rich understanding of the value chain being investigated, which may then be followed by probing. Hence, this researcher adopts a phenomenological epistemological stance.

4.2.3 Methodological Assumption

The methodological assumption refers to how the researcher goes about finding what he or she believes can be known (Guba & Lincoln, 1994). Schwandt (2007, p. 190) define this as "the process of how we seek out new knowledge. The principles of our inquiry and how inquiry should proceed". The epistemological stance of a researcher generally influences selection of particular methods characteristic of that stance (Easterby-Smith, Thorpe, & Jackson, 2008). A positive epistemologist (deductive approach) is concerned with operationalisation of constructs in order to test them. The researcher will often use a large sample size in order to reduce the phenomena into its smallest parts and then analyse the data to examine relationships between variables and/or causality (Collis & Hussey, 2009). In contrast, a researcher who holds a phenomenological epistemology (inductive approach) aims to obtain various perspectives to understand the phenomena as a whole, and identify patterns that may be generalisable or repeated in similar circumstances. Hence, the sample size will be relatively small (Collis & Hussey, 2009).

In this study, the aim is not to operationalise factors and test hypotheses. Instead the aim is to gain a comprehensive understanding of the governance of a value chain. To achieve this, there is a requirement for a small sample size to investigate the phenomena as whole, rather than its simplest parts. As a result, an inductive approach best helps to meet this objective, and this approach is common among researchers when attempting to understand a phenomena and / or build theory. For example, Mirkovski, Lowry, and Feng (2016) aimed to develop a greater understanding of how inter-organisational relationships influence technology use in developed versus developing economies. To achieve this, the authors utilised a number of propositions to guide the research and gathered data using a qualitative multiple case study approach, revisiting the propositions post data collection and analysis for further assessment. Similarly, Brito and Miguel (2017) also aimed to gain an in-depth understanding of a phenomena. In this case the authors were investigating the role of power asymmetry in collaborative relationships, and noted the lack of research in this research area. Consequently, a qualitative multiple case study approach was adopted in an effort to build theory, and a series of propositions related to the phenomena was developed.

4.2.4 Positivist, Interpretivist and Critical Realist Paradigms

Within the social sciences, there are two main paradigms: the positivist, and the interpretivist. However, the critical paradigm has also gained popularity in recent years as an alternative research paradigm in the social sciences (Peters, Pressey, Vanharanta, & Johnston, 2013; Tsang, 2014), and an overview of these may be found in Table 4-1. The central element of positivism is the view that reality exists externally to the individual. Therefore, the properties of reality are measured through objective methods, rather than subjectively (Easterby-Smith et al., 2008). A researcher who has an objective ontological and positivist epistemological view of the world is likely to approach research from the positivist paradigm (Collis & Hussey, 2009). This paradigm generally utilises a deductive approach and is quantitative in nature. Hypotheses are formed and the phenomenon is reduced to its simplest elements, with the results proven to be accurate and reliable through validity and reliability measures (Easterby-Smith et al., 2008).

Table 4-1 Positivist, interpretivist and critical realist paradigms

	Positivist	Interpretivist	Critical Realist
Ontological Assumption	Social reality is objective and external to the researcher, and therefore, reality is singular	Social reality is individually constructed by the individual, and therefore, there are multiple realities	social reality is a product of its history, and is produced and reproduced by people
Epistemological Assumption	Only phenomena that are observable and measurable may be accurately regarded as knowledge. The researcher remains independent and objective in his/her stance	Knowledge is created through understanding. The researcher interacts with what is being investigated	Knowledge claims specify and describe elements of reality that must exist in order for the phenomenon to occur
Methodological Assumption	• Process is deductive • Study cause and effect through static categories (pre-classified) • Hypotheses are formed and then tested • Sampling requires large number to be selected randomly • Phenomena being investigate is reduced to simplest components • Results are accurate and reliable through validity and reliability	• Process is inductive • Study of simultaneous factors with emerging categories (identified during research) • Theory is developed through inductive interpretation of data • Sampling requires small numbers to be chosen for specific reasons • Phenomena investigated as a whole • Findings are accurate and reliable through verification	• Multiple theoretical perspectives are incorporated into design • Study of simultaneous factors with emerging categories (identified during research) • Multiple analytical and methodological techniques • Variety of data sources and types (may be collected by multiple investigators) • Phenomena investigated as a whole • Findings are accurate and reliable through verification
Research Approach	• Quantitative • Objective • Scientific • Traditionalist	• Qualitative • Subjective • Humanist • Phenomenological	• Qualitative / Quantitative / mixed method • Mix of objective and subjective • Humanist • Phenomenological

Source: Adapted from Collis and Hussey (2009); Easterby-Smith et al. (2008); Wynn and Williams (2012).

In contrast, core to the concept of interpretivism is the view that social reality is subjectively constructed, and therefore, multiple realities exist (Easterby-Smith et al., 2008). A researcher who has a subjective ontological and phenomenological view of the world is likely to approach research from the interpretivist paradigm (Collis & Hussey, 2009). The interpretivist process is inductive in nature, and the researcher holds that knowledge is created through understanding and interacting with what is being investigated (Myers, 2013). Therefore, this approach is generally qualitative in nature with the researcher attempting to understand a phenomena as a whole and ensuring that results are accurate and reliable through verification (Easterby-Smith et al., 2008).

The critical realist approach aligns more closely to the interpretivist paradigm, however, is quite distinct. Critical researchers assume that social reality is a product of its history, and that it is produced and reproduced by people (Myers, 2013). Hence, the critical paradigm is based upon a relational understanding of society (Peters et al., 2013), and the premise that although people may consciously work to change their circumstances, they are constrained by various social, economic, and political factors (Myers, 2013, p. 43). Central to the critical realist view is that relationships are causal in nature (Wynn & Williams, 2012). In other words, the relationships that a person or organisation holds both enables and constrains what the actor can and cannot do within its relational network (Peters et al., 2013). Additionally, realism takes the stance that it is often the powerful actors in society that determine the social reality or, what is 'true', and that truth should be reached through rational discussion, rather than being imposed by a group (Easterby-Smith et al., 2008). This centrally held view is the point of departure between critical realism and interpretivism. Where an interpretivist may attempt to describe current knowledge or beliefs, the critical realist will challenge these (Myers, 2013). The focus is not so much on a specific event, but the underlying causal relationships of the phenomena under study (Johnston & Smith, 2010).

In the current study, the aim is to understand the choices that firms make within the value chain, in order to understand how value chains may be structured to return value to producers. Therefore, interpretivism and critical realism approaches are deemed more appropriate than the positivist paradigm. Further, path dependency is a key factor in the ability of an organisation to make decisions, and the power dynamics within a relationship influence the way that an actor may behave (Valorinta, Schildt, & Lamberg, 2011). Hence, a critical realist approach is adopted in this study.

4.3 Research Strategy

Critical realism may result in either a qualitative, quantitative, or mixed method research approach. However, given the knowledge gap and research aims of this study a qualitative research design is appropriate for this research (Collis & Hussey, 2009), and therefore, it is important to select an appropriate research strategy. Ethnography, action research, phenomenology, grounded theory, narrative, and case study are commonly utilised strategies in the social sciences (Denzin & Lincoln, 1994; Easterby-Smith et al., 2008; Myers, 2013). This section reviews each of the aforementioned strategies to assess their potential contribution to the current study in order to select an appropriate data collection method, and a summary of these may be found in Table 4-2.

Ethnography is a strategy that involves participant observation to learn about the culture of study participants (Goulding, 2005). The researcher aims to immerse themselves within the research setting in order to understand the meanings and significance of human actions (Easterby-Smith et al., 2008). Rather than aiming to test a set of hypotheses, the emphasis is on completing an in-depth exploration of a social phenomenon within a limited number of cases (Atkinson & Hammersley, 1994). However, it is recognised that the aim of the current research is to understand the governance structures of value chains within the agribusiness industry, not the nature of human behaviour. Therefore, an ethnographic study is not appropriate for this research for two key reasons. First, it has lacks breadth, and second, the unit of analysis in this study is not the individual, but rather the value chain network.

The purpose of action research is to solve practical issues, while also advancing scientific knowledge (Collis & Hussey, 2009). A researcher who adopts this strategy believes that the best way to learn about an organisation or social system is to attempt to change it (Easterby-Smith et al., 2008). While ethnography is used when a researcher wishes to understand a phenomenon, action research attempts to instigate organisational change and simultaneously study it (Myers, 2013). One of the main advantages of action research is that it solves practical issues. However, it can be difficult for the researcher to do both the action, and the research, i.e. solving practical issues and publishing in scientific journals (Myers, 2013). This research is concerned with understanding phenomena, rather than changing processes. Therefore, action research is not the most appropriate research strategy to adopt for the current study.

Table 4-2 Qualitative research strategies

Research Strategy	Purpose	Advantage	Disadvantage	Level of suitability (high/med/ low)
Ethnography	Participant observation to learn about culture	Allows in-depth examination of phenomenon	Focus on the individual, rather than the organisation or value chain	Low
Action research	Solve practical issues while advancing scientific knowledge	Solves an organisational issue, generates knowledge	Difficult to adequately instigate change whilst simultaneously conducting research	Low
Phenomenological strategic approach	Highlight life experiences within a phenomena	Examines the experience, rather than the motivators	Focus on the individual, rather than the organisation or value chain	Med
Grounded theory	Develop theory through data collection and analysis, avoiding theoretical preconceptions	Useful in examining behaviour with interactional elements, especially with little theoretical foundation	Potential bias, and issues around validity and reliability	Med
Case study	Detailed examination of a contemporary phenomena	Allows in-depth examination of phenomenon	Potential bias, time consuming, and can be difficult to generalise	High

Source: Author

A phenomenological strategic approach highlights the life experiences of individuals within a phenomena (Holstein & Gubrium, 1994). Depending on the epistemological or ontological stance of the researcher, phenomenology may be viewed as a either a philosophy, or a methodological strategy (Goulding, 2005). As a research strategy, phenomenology reflects the conscious experience of an individual, rather than subconscious motivators, and data is generally collected through interviews (Sanders, 1982). The current study is concerned with understanding governance structures, rather than individual experiences of research participants and is therefore not suitable for this research.

A grounded theory strategy is often employed when there is little previous knowledge of the phenomenon under investigation and is suitable for use when studying any behaviour with an interactional element (Goulding, 2005). The researcher should have no preconceived theoretical ideas to ensure that concepts emerge from the collected data. However, a literature review should still be conducted (Myers, 2013). The key concern is gathering established knowledge while simultaneously being open minded to new concepts (Goulding, 2005). Hence, key disadvantages of the strategy relate to the potential for bias, and the subjectivity of data leading to issues around reliability and validity (El Hussein, Hirst, Salyers, & Osuji, 2014). Previous studies have not adequately addressed the concept of value creation and value capture, nor the mechanisms that mediate this in the context of value chains or value chain networks. However, value chain governance has benefited from a substantial theoretical foundation within the literature, as highlighted in Chapter 2. This study seeks to use qualitative methods in order to explore the application of governance mechanisms in the extant literature to a real world setting. Consequently, grounded theory is likely not suitable for this study.

A case study approach may be used when the “main research questions are ‘how’ or ‘why’ questions… you have little or no control over behavioural events, and your focus is a contemporary phenomenon” (Yin, 2018, p. 2). Hence, there are three criteria to consider in selecting a case study approach. First, the current study seeks to understand ‘how’ value creation and value capture are governed in agribusiness value chains. Second, because the researcher is attempting to gain a deep understanding of a phenomena and not to control a particular situation, in-depth interviews offer a direct approach to search for data. Finally, this research explores current practices among value chain network actors, rather than a historical event. Based upon these three selection criteria, a case study methodology is an appropriate research strategy for the current study.

There is some dispute among scholars about what is meant by a 'case' as well as a 'case study'. However, broadly there is consensus that a case study is a detailed examination used to generate an in-depth and multi-faceted understanding of a social phenomenon within a real life context (Schwandt & Gates, 2018). In the context of this study, the value chain is the overarching unit of analysis. Therefore, in this context the case contains members of the value chain from the producer through to the retailer. This allows for an examination of individual chain actors, but also provides an overall view of the chain and its activities.

This research adopts a multiple case study approach for three reasons. First, multiple cases are considered more robust than a single case, adding to the rigour of the study (Yin, 2018). Second, multiple cases allow more generalisability, and third, they allow for differences between cases to be explored in order to identify similarities or differences, and draw comparisons between cases (Baxter & Jack, 2008). Yin (2018) suggests that in case study research there are five key components of the research design: case study questions; the propositions, if any; the case(s); the logic linking the data to the propositions and; the criteria for interpreting the findings.

4.4 Method of Data Collection

There are six main sources of evidence that a researcher may collect when conducting a case study: physical artefacts, documentation, archival records, direct observations, participant-observation, and interviews (Stake, 1995; Yin, 2018). Physical artefacts are largely used in anthropological studies and generally less relevant for sociological studies, but may be tools, instruments, or other forms of physical evidence collected during a field visit (Tellis, 1997). Documentation and archival records are useful in case study research in that they are specific and unobtrusive however, this data can be difficult to collect due to privacy reasons (Stake, 1995). The aim of this study is to elicit a broad view of the value chain and how relationships behave within the network; the specific mechanics of interactions are not the target of this research. Therefore, aside from publicly available documentation which the researcher used in gaining background information on the studied organisations, documentation and archival records are largely inappropriate for this research.

Direct observation and participant observation are useful for immediacy and context, and also provide insights into interpersonal behaviour (Yin, 2018). However, these methods of data collection are time consuming and costly, are likely to introduce bias into the research as participants know they are being observed and may manipulate events. Further, this study is not concerned with the day to day processes of organisation members, or the behaviours of individuals, as this is not the unit of analysis for the research, and so direct observations and participant observations are not deemed to be appropriate. Finally, interviews are regarded as one of the most important sources of case study evidence and are useful because they are targeted and provide insight into complex issues (Yin, 2018). However, they may also introduce bias when questions are poorly articulated, and have response bias where the interviewee may respond with what they believe the interviewer wants to hear. Despite these disadvantages, interviews are ideal for explanations of 'how' and 'why', and therefore, are adopted for this research, whilst being aware of potential disadvantages of the chosen data collection method.

Due to the nature of sociological research "…neither completely structured nor completely unstructured interviews are possible" (Brinkmann, 2018, p. 579). However, broadly interviews may be classified into three basic types: structured, unstructured, and semi-structured (Easterby-Smith et al., 2008; Myers, 2013; Yin, 2011). Structured interviews employ pre-formulated questions in a survey that allow the researcher to draw comparisons across participants, and may be quantified. This type of interview is time consuming in terms of planning, however there is little to no improvisation on the interviewers behalf during data collection. Structured interviews are often used in market research where responses allow the researcher to infer generalisations within certain limits of accuracy (Easterby-Smith et al., 2008). In contrast, unstructured interviews involve the use of little to no pre-formulated questions. There may or may not be a time limit, and the purpose is to allow the respondent to narrate freely. Consequently, there is no consistency between interviews, and this approach is often used when attempting to elicit life stories (Brinkmann, 2018).

Semi-structured interviews sit between these two extremes and involve the use of pre-formulated questions, but there is no strict adherence to them (Myers, 2013). This is the most used form of interviewing in human and social sciences because they allow more opportunity for knowledge generation as responses may be followed up on during the interview. Further, they allow the researcher to manage the direction of the interview through the use of open and closed questions and questions may be improved through paraphrasing, probing, and summarising (Brinkmann, 2018). Hence, the semi-structured approach maximises the benefits of interviewing, while minimising the risks associated with structured and un-structured interviews, and this form of interview was selected for this research.

4.5 Interview Protocol Design

A key consideration of conducting semi-structured interviews is the design of the interview protocol which acts as an outline for the interviewer to obtain comprehensive insights into the topic of interest (Yin, 2018). The use of a protocol allows interviews to be conducted in a more structured way than conducting interviews through informal conversations. This is particularly important when conducting several interviews across multiple organisations as it reduces misinterpretation of questions by respondents (Bryman & Bell, 2007). Additionally, in the case where interviews are conducted by a team of researchers rather than a single individual, a case study protocol improves the reliability of the study (Ellram, 1996).

This author was part of a research team within a wider project, consisting of sixteen members; ten university researchers, two crown institute researchers, and four employees of consultancy organisations. The research was a part of the Our Land and Water National Science Challenge (OLW NSC), research funded by the New Zealand Ministry of Business, Innovation and Employment. An external advisory board consisting of twelve members representing a number of private and public sector entities governed the progress and funding of the study. Specifically, this author was responsible for conducting an initial literature review, co-designing the research framework with the team leader, co-designing case selection criteria, developing the interview protocol, conducting interviews of one of the cases, collating the results to analyse, writing the final report, and presenting progress reports to the advisory board, and the final results to the OLW symposium. It should be noted that this author was not responsible for case selection, or establishing relationships with case members. The following figure (4-1) highlights the research phases taken for this study.

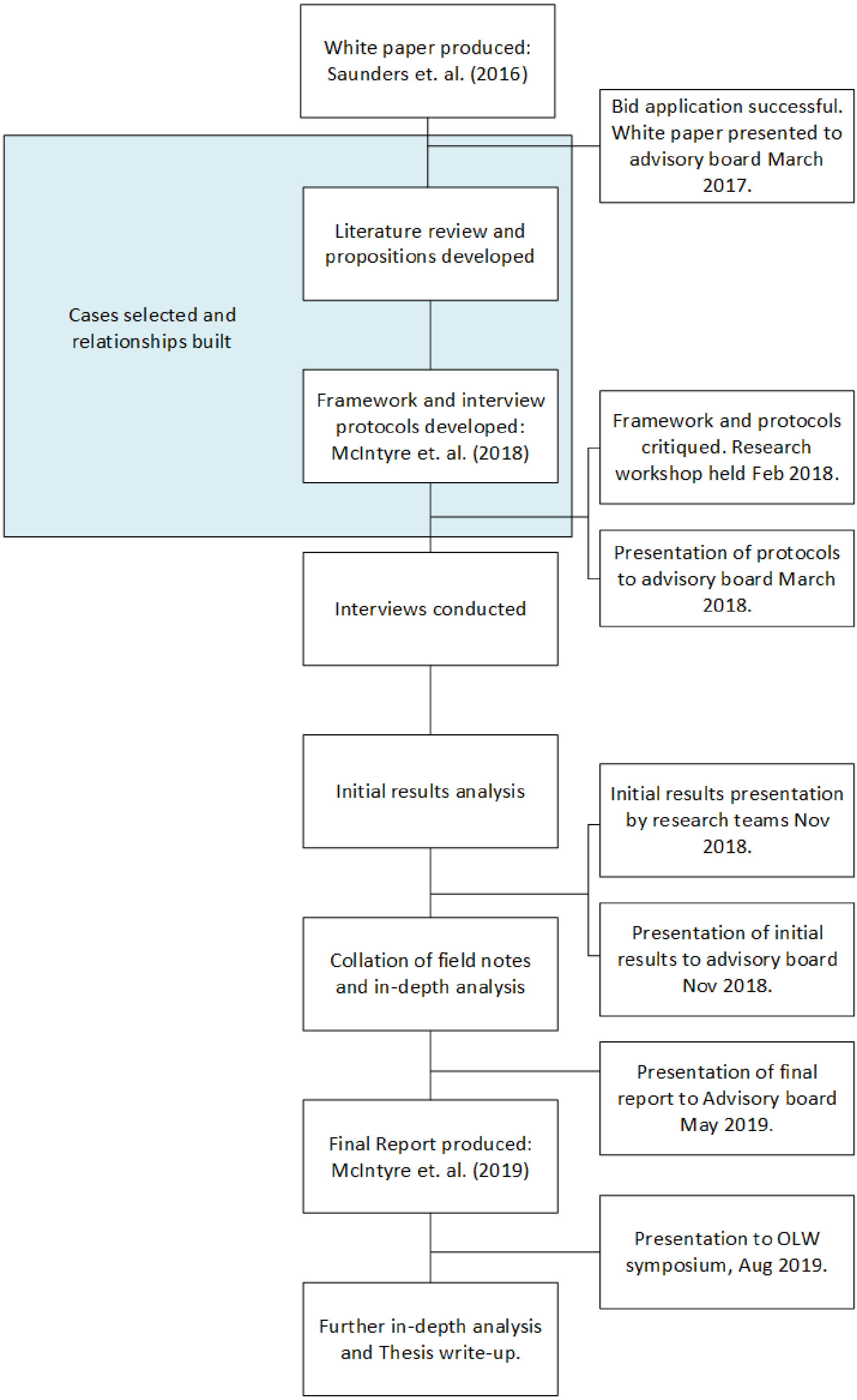

Figure 4-1 An overview of the research process
Source: Author

When designing the case protocol, an important decision is the use of open or closed questions. Both have their various advantages and disadvantages. Open ended questions are particularly useful in qualitative research where the researcher “tries to have participants use their own words, not those predefined by the researcher, to discuss topics” (Yin, 2011, p. 135). Consequently, this research primarily makes use of open ended questions to elicit unique and in-depth responses from participants. The interview protocols were developed from the propositions derived in Chapter 3, based upon reviewed literature, in an effort to address the study’s research questions. To do this, each attribute had a research question developed, that acted as a guide in designing the key interview questions to be used in the data collection phase. The protocol was initially drafted by the researcher and critiqued by three academics in the Supply Chain Management field through an iterative communication process. This culminated in a two day workshop of all researchers involved in the data collection phase and allowed for ongoing discussion around the protocol. The process was deemed complete when there was consistency among researchers surrounding the interview protocols.

The data collection was undertaken by five multi-disciplinary teams each consisting of two researchers. Therefore, it was critical that a firm understanding of the terminology was achieved, particularly when considering the different academic backgrounds of the researchers. To address this, a two day workshop was held in which five academics, and four industry professionals gave further input into the interview schedule. Additionally, focus group discussions were also held around the information the researcher was attempting to elicit from the respondent, and prompting questions were developed. The basic set of questions is shown in Table 4-3, and the comprehensive interview protocol may be found in Appendix A.

Table 4-3 Basic interview protocol

Attribute One: Market Orientation
Research question: How do you receive information about what your final consumer’s want, and how do you process this information into actions to increase returns? *Key interview question:* • Do you receive any signals from the consumer? • How do you get these and how do you respond?
Attribute Two: Information Enriched
Research question: What technologies/sources do you use for communicating with which partners in the value chain, and allowing them to communicate with you? *Key interview question:* • How and who do you communicate with in the value chain?

- How often do you have this communication and how good is this communication (e.g. how does it help you?)

Attribute Three: Incentive Alignment

Research question: How do your formal contracts or informal arrangements in the value chain reward partners for meeting customer expectations and values, and has this changed?
Key interview question:
- What rewards (including non-financial) do you get for meeting consumer requirements? And has this increased/changed?
- How important are the contract clauses in shaping your behaviour?
- What benefits are not covered by contractual arrangements?

Attribute Four: Channel Leadership / Power

Research question: How are the overall policy and values of the value chain determined and enforced; who calls the shots and how is this done?
Key interview question:
- Who leads the value chain?
- How do they influence you and your decisions?
- How much influence do you have over their actions?

Attribute Five: Integrated Network Governance

Research question: How are the different relationships in the value chain integrated to create a collaborative value maximising strategy? Do these social agreements help safeguard exchanges? Do they prevent opportunistic behaviours by others?
Key interview question:
- How does the value chain work as a whole, beyond the bilateral relationships?
- Can you describe the collaborative relationship connections (not legal, but socially binding agreements) up and down the value chain?

Attribute Six: Value Co-creation

Research question: What do the different partners in the value chain contribute (especially intangible assets or specialist capabilities) to delivering value?
Key interview question:
- What key resources (tangible and intangible) do you contribute to the value chain?
- What key resources do you need from your value chain partners?
- Who pays for R &D and Innovation and who holds the IP in this value chain?

Attribute Seven: Resilience and Adaptability

Research question: How does each partner respond to shocks in the environment, and how does the value chain as a whole respond? How does the value chain deal with uncertainty and risks?
Key interview question:
- What are the key risks to you and your value chain? Do you have a plan to mitigate these?
- How easy is it for you to change your practices to meet changing consumer requirements and also the changing business environment?
- Can you describe any changes to land use practice in response to changing consumer requirements the business environment?

Attribute Eight: Brand Ownership and Control

Research question: How do different partners influence one or more parts of the brand narrative? *<u>Key interview question</u>*: • Do you know how the brand story is presented at retail? • Do you have an input into how this is presented? • Describe your input into the definition of the brand? • Describe your equity in the brand? • How is the brand audited?

Source: Author

4.6 Data Collection

One of the significant things that a researcher must consider when undertaking a study is case selection criteria. This can be a challenging task as there is no standard catalogue of case designs, and each selection choice reflects the issues that the research is attempting to address (Yin, 2018). In order to select appropriate cases for study it is suggested that the case needs to defined and bound (Yin, 2018). In the current study, the case may be defined as a New Zealand based agribusiness chain, and may be bound by the product channel of the chain, from producer through to retailer.

The current study was conducted within the boundaries of a wider project. The researcher did not have control over the case selection process and cases were purposefully selected based upon the following criteria. First, the value chain must be New Zealand based as the research has a distinct New Zealand context. Second, the research is focused on agribusiness value chains, and the selected cases must operate within this sector. Third, there must be at least four links in the chain and multiple channels to market, to guarantee both complexity and scale. Four, the chain is required to produce a value added product rather than a commodity. This ensures that the case is a ‘true value chain’ as embodied by the value chain philosophies outlined in Chapter 1.

In addition to the contextual case criteria, considerations were made around theoretical implications. While complexity and scale were contextual selection criteria, they were also considered in terms of theory and an effort was made to secure cases ranging from boutique products, through to mass production. This allows for pattern matching to take place across the chains to make comparisons and draw inferences on how product type and governance affects a value chains ability to create and capture value. Hence, both a literal and theoretical replication approach is adopted (Yin, 2018). That is, a literal approach expects similar results across cases (the propositions), and a theoretical replication predicts contrasting results (governance structures). Both of these replications add robustness to the case and allow for results to be stated more assertively

(Yin, 2018). Following these considerations, five New Zealand agribusiness organisations were secured for the data collection phase. These included four food and beverage cases and one non-perishable land based product (see Chapter 5 for a detailed description of each case).

Relationships were established with a key employee in each of the case organisations to act as a coordinator in securing interview respondents. The research team worked closely with the coordinator to ensure familiarly with the study, and recognition of what the research was aiming to achieve. This relationship was important for two reasons. First, the interviews were conducted face-to-face. In the interest of time and expenses related to travel, it was preferred that all interviews were scheduled over a short time period and distance between respondents within each case. Second, researchers were interviewing key decision makers within the value chain and these actors often consisted of middle and senior management. In terms of securing interviews, it was convenient to have a key coordinator within each organisation to manage the logistics of this. This initial phase of the data collection took place over a three month time frame prior to the interviews. During this time, there was a line of communication open at all times in the form of emails, telephone calls, and face-to-face meetings.

The interview phase of data collection took place over a six month period. Two researchers were responsible for conducting the interviews within each of the cases, the author being a member of one of the teams. Previous studies suggest that it is critical that the researcher has a thorough understanding of the case circumstances before conducting interviews (Easterby-Smith et al., 2008). Therefore, the researchers reviewed published documents such as corporate websites, annual reports, media releases, and other company documentation in order to understand the context of both the industry and organisation. This helped the researcher to establish rapport and trust with the interview respondent (Easterby-Smith et al., 2008). Field notes and summary notes were taken by every researcher present at each interview to aid in the data analysis phase and these were made available to the wider research team. During this period of time researchers were also made aware of confidentiality and ethical procedures to ensure that the aims and objectives of this research were reached in an acceptable and appropriate manner. The proceeding section highlights these.

4.6.1 **Confidentiality and Ethical Procedures**

Due to this research being conducted with business organisations, there are potential issues around the confidentiality and disclosure of commercially sensitive information, as well as the protection of the participants and organisations. To address this, the researcher took two precautions. The first was the removal of company and participant names from the transcriptions, as well as care taken in the data analysis, storage of data, and thesis writing so that confidentiality remained intact. The second was the signing of a mutual non-disclosure agreement between representatives of Lincoln University and the concerned party.

The enforcement of ethical procedures is an important concern for all research. As per the Lincoln University Human Ethics Committee guidelines, no formal approval was needed for the study as participants were interviewed within their professional capacity. However, to ensure that the interview respondent was well informed, information was provided to the organisation prior to the interviews taking place. Further, at the beginning of the formal interviews the interviewer was responsible for making sure that the interviewee was aware of the purpose of the interview, that participation was voluntary and may be withdrawn at any time, and that the interviewee had the right to decline to respond to any of the questions. The interviewer then clarified any questions that the interviewee may have had, and obtained verbal consent to proceed with the interview.

4.7 Data Analysis

The data analysis process begins at the closing of the first interview, and ends with the final write-up (Miles, Huberman, & Saldaña, 2014; Myers, 2013; Yin, 2018). In order to begin analysing the data, the researcher must first adopt an analysis strategy, and there are two basic decisions to make: analysing the data via a top down or bottom up approach, and aiming for depth of analysis or a greater number of data sources (Myers, 2013). A top down approach utilises the extant literature to draw out concepts to use for the analysis and in contrast, a bottom up approach will see concepts emerge as the researcher analyses the data (Yin, 2018). While a researcher may adopt a top down or bottom up approach to data analysis, they are not likely to sit at either extreme, as these approaches exist on a continuum (Myers, 2013). In the current study the interview protocol is largely grounded in theory. However, a top down approach has the potential to limit the knowledge generated by this study as it is expected that not all outcomes will be perfectly grounded in existing theory and therefore, both approaches are acknowledged in the data analysis phase.

In terms of the decision surrounding depth and number of data, there is an unavoidable trade-off to be made as the smaller the number of cases selected, the greater the potential depth of the data analysis, and vice versa. Specifically, the trade-off in the current study was the decision surrounding the number of cases to analyse. This research adopted a multiple case study design with the aim to achieve some sense of generalisability, while also maintaining few enough cases to produce meaningful results. Due to the available resources, it would be decided that five cases would be analysed. Field notes were gathered by five research teams of two people, recorded, and reviewed several times. This ensured that the raw data was recorded as accurately as possible to prepare for the next stage of the data analysis: a case analysis meeting.

Case analysis meetings are useful when trying to summarise the status of a case (Miles et al., 2014). In the current study this was a two day gathering of nine participants where each research team presented the results of their specific case to the other researchers involved. This meeting was audio-recorded for later reference by the author and questions were asked by participants where it was believed that clarification was needed. The purpose of the meeting was to not only for the teams to present the findings, but also provide an opportunity to draw out additional information from each team. In addition to this, the case analysis meeting also provided a valuable opportunity in conducting an initial cross case analysis to outline the commonalities or differences among cases.

Following the case analysis meeting, this author collated all field notes and case presentations from each of the researchers. This provided a great deal more data than was provided at the case meeting, and provided a solid foundation to conduct an in-depth case analysis as some internal validity had already been established via the case analysis meeting and presentation of initial results to the advisory board. The in-depth analysis was conducted using a case-based, cross-case analysis. The advantage of this method is the retention of the integrity of the entire case and allowing the researcher to compare or synthesise any within-case and across-case patterns (Yin, 2018). This method of analysis allows a degree of "…generalisability or transferability to other contexts… a second, more fundamental reason for cross-case analysis is to deepen understanding and explanation" (Miles et al., 2014, p. 101).

The case-based analysis involved separating each of the interviews for every case, ensuring that two sets of interview notes were present for each of the 34 interviews. In analysing case study data coding provides a useful tool for processing field notes, and may be defined as "…a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldana, 2009, p.3). This is often conducted using first and second cycle coding. In this case, each set of field notes was first cycle coded using attribute coding, a tool often employed to identify basic descriptive information, and is particularly useful when the case study involves multiple participants and sites, and cross-case studies (Miles et al., 2014). In the second cycle pattern codes were developed in order to further summarise each of the attribute codes. Code titles were then analysed and similar codes were merged, aiding in the detailed write-up of each of the cases. Before undertaking the cross-case analysis, each of the case descriptions was sent to the appropriate teams for feedback, and any adjustments made.

A cross-case analysis was conducted utilising the initial codes, and studying the case descriptions. When conducting a cross-case analysis, one approach that can be used is a variable-based method in which the researcher aims to identify the key variables and aggregates the cross-case data for each of the variables (Yin, 2018). Given that the propositions for this study were attribute based, the researcher used both case-based and variable-based approaches in conducting the cross-case analysis as it is often perceived to be a more desirable methodological approach (Miles et al., 2014). In the context of the current research, the cross case analysis provided two key benefits. First, the initial analysis allowed the presentation of preliminary results to the research team for feedback, and to the external advisory board. This provided an opportunity to identify any possible misinterpretations of collected data, and to meet funder key performance indicators. Second, further analysis of the cases following the case analysis meeting allowed the researcher to draw additional insights from the cases and are highlighted in Chapter 7.

4.8 **Reliability, Validity and Generalisability**

From a critical realist perspective there are five main issues to assess when establishing the trustworthiness of a study: (1) objectivity/confirmability, (2) reliability/dependability/auditability, (3) internal validity/credibility/authenticity, (4) external validity/transferability/fittingness, and (5) utilisation/application/action orientation (Miles et al., 2014). Objectivity is concerned with reasonable freedom from unacknowledged researcher bias. Consequently, the researcher needs to be aware of the inevitable biases that exist, and make efforts to explicitly state methodological considerations and ensure that possible rival conclusions are considered (Miles et al., 2014). In contrast, reliability "addresses the repeatability of the experiment, and whether replication is possible and will achieve the same results" (Ellram, 1996, p. 104). Where case studies are concerned, two tools critical in ensuring this are the use of a case study protocol, and the development of a case study database.

Internal validity assesses the "truth" or credibility of the findings. In other words, are the findings plausible and descriptions context-rich and meaningful (Miles et al., 2014)? This study aimed to enhance the internal validity through the use of semi-structured interviews which acted as a mechanism to guarantee the researcher had time to fully understand the context and phenomena being examined (Baxter & Jack, 2008). Additionally, findings were shared among all research teams to provide an opportunity to share feedback on the field notes, and also discuss any of the findings.

External validity is concerned with "showing whether and how a case study's findings can be generalised" (Yin, 2018). One key tool for ensuring this is the research questions for the study and interview protocol design. The way in which these are worded greatly impact upon the ability to generalise results (Yin, 2018). Additionally, Miles et al. (2014) suggest that the processes and outcomes outlined in the conclusion should be relevant in comparable settings, and the findings are connected to prior theory. Finally, utilisation addresses the issue of applicability of the research for participants (Miles et al., 2014). It is important that even if transferability is established, the researcher explicitly states the implications of the research and this is explored in Chapter 7. A summary of the steps taken to ensure the reliability, validity, and generalisability are shown in Table 4-4.

Table 4-4 Case study assessment measures

Criteria	Steps Taken
Confirmability (objectivity) The degree to which the results may be confirmed by other researchers	a) Data collection is undertaken by research teams of two. Both researchers work together to interpret the findings. Initial findings are presented in a workshop with all research teams. b) Initial findings and field notes are used to provide an in-depth analysis of the findings, and all researchers may have access to the analysis at any point in time. c) Participating value chains may have access to the case notes and may provide feedback on the interpretation of the results. Interpretation of the results also includes direct quotes from participants where possible.
Dependability (reliability) The repeatability of the study	a) A detailed interview protocol is developed for this research. An overview of the research objective is provided, as well as concise questions and prompting questions to guide the data collection. This may be followed in future to allow researchers to gather similar results. b) A case study database is developed for this research. This includes information such as contact details of participants, case notes, results presentations, and associated reports.
Credibility (internal validity) The degree to which the research findings are a true interpretation of the study participants views	a) An initial relationship is established with a key employee in each of the case organisations. This is to ensure familiarity of the study and recognition of the research objectives.

	b) Respondents are given the opportunity to withdraw from the study at any time. c) A multiple case study approach using semi-structured interviews is used as the research tool. This approach is widely used in social sciences. d) The researcher has sought feedback and support from peers. This is in the form of presentations to the research team and advisory board, as well as conference presentations.
Generalisability (external validity) The level to which the results of the study may be applied to other research in different contexts	a) Each case is described in detail. This includes an overall description of the chain investigated and the context the chain operates within. b) A multiple case study approach is undertaken, allowing for greater generalisability. c) Cases are purposefully selected across the agribusiness industry allowing for greater breadth of chain types. Semi-structured interviews allow for in-depth data to be collected.

Source: Author

4.9 Summary

This chapter outlined the research methods used in conducting this study. In terms of adopting a philosophical paradigm, it was argued that a critical realist approach best aligns with the aims of this research. Path dependency is a centrally held view of this paradigm and it is acknowledged that the organisations are constrained by their resources, relationships, and past decisions. Further, the adoption of this view lends itself towards a qualitative research design. Through an investigation of different qualitative research strategies, a case study approach offers a way to gather rich data of a current social phenomenon where the researcher has no control over behavioural events. Additionally, a multiple case study offers a more robust study than a single case as it allows a degree of generalisability, and comparisons to be drawn between cases.

Five New Zealand land-based value chains were purposefully selected for the data collection phase, with semi-structured interviews being carried out by five teams of two researchers. It was critical that a firm understanding of the terminology was achieved, and this was ensured through a two day workshop held prior to data collection. Data collection took place over a six month period whereby researchers ensured field and summary notes were taken. A second workshop following this phase of the study provided researchers with the opportunity to present their findings and for a critical phase of data analysis to take place. The findings were then made available to the author to conduct further analysis and a cross-case comparison of the findings of each research team. These are highlighted in the proceeding chapter, which highlights the findings of this study.

Chapter 5

Case Results

5.1 Introduction

The research phase for this study took place between March 2018, and December 2018. Five different New Zealand primary industry value chains were selected for analysis, with the first three months of research being focused on relationship development and obtaining research participants. Following this initial period, interviews were conducted over six months. A total of 34 interview participants along different stages of each value chain were asked a variety of questions, beginning with a general overview of the value chain and its structure, followed by discussions around the value chain attributes identified in Chapter 3. The current chapter reports the results of the interviews case by case through a case introduction and reporting of attributes.

Five New Zealand land-based value chains were purposefully selected for their variety of value-added product offerings, chain complexity, and scale. As noted in section 4.6.1, efforts have been undertaken to ensure the anonymity of case participants and therefore generic descriptions are used. Value chain A is a horticultural chain with a single desk seller who coordinates the entire chain. Value chain B is a boutique meat chain whereby value chain actors have autonomy and may participate in other chains due to the limited use of formal contracts. Value chain C produces non-perishable land-based goods and is coordinated by an e-commerce platform, managed by the focal company. Value chain D produces seafood, whereby the focal company is one of the producers and also the processor. Finally, value chain E produces wine whereby the focal company controls the producing and processing, as well as the brand story communication to consumers.

One of the aims of this research is to add to the end-to-end governance literature and view the value chain as a system, rather than a series of dyadic relationships. Therefore, making it possible to understand the overall governance of a value chain, whilst also identifying the management decisions of different actors in order to gain a better understanding of mechanisms within a system. Having a chain view provides a valuable contribution to the current literature as much of the value chain research approaches governance from a theoretical perspective (Carey & Lawson, 2011), investigates the firm (Jraisat, 2016), the dyad (Aggarwal & Srivastava, 2016), or the supply chain along two to three tiers (Gellynck & Molnár, 2009). In an attempt to expand upon this, efforts were made to obtain interview participants from different value chain stages from producer to retailer. Further, to ensure that a broad view of value chains was obtained, value chain cases were selected across the New Zealand agribusiness industry. Table 5-1 provides a broad overview of the selected cases, while the remainder of the chapter provides individual case descriptions and results obtained during the research phase of the study.

Table 5-1 Overview of the research cases

Value Chain	Type of chain/ product	Number of interviews conducted	Interview at each chain stage	Focal company chain stage	Number of chain links (procurement to consumer, inclusive)*	Channels to market	Main markets
A	Horticulture	Nine	Producer (n=2) Processor (n=1) Distributor (n=6)	Distributor	Six	• Distributor • Retailer • E-platform	• EU • China • Japan
B	Meat	Eight	Producer (n=3) Processor (n=1) Distributor (n=1) Retailer (n=3)	Producer	Six	• Restaurant • Retailer	• Domestic • Japan
C	Non-perishable land-based	Four	Processor (n=1) Distributor (n=2) Retailer (n=1)	Distributor	Five	• E-platform • Retailer	• Domestic
D	Seafood	Five	Processor (n=5)	Processor	Six	• Retailer • Distributor	• Canada • Japan
E	Wine	Eight	Producer (n=1) Processor (n=8)	Processor	Seven	• Distributor • Retailer • E-platform	• United States of America

*It is recognised that a value chain includes all stages from raw material inputs to the final consumer. However, in the interest of creating a case study boundary, interviews were conducted from the producer to the retailer.

Source: Author

5.2 Value Chain A

Value chain A was noted above as being a horticultural chain that serves many international markets, and interviews were conducted along three stages of the chain (see Table 5-2 for a brief description of participants). The participant profile consisted of middle and upper management in order to ensure that the respondents had sufficient knowledge to cover a range of questions related to both their own firm, and the supply chain as a whole. Eight of the nine interviews were conducted in-person over a two day period in July 2018, with the final interview being conducted over the phone the following week.

Table 5-2 Value chain A interview participants

	Value Chain Stage			
Value Chain	**Producer**	**Processor**	**Distributor**	**Retailer**
A (n = 9)	Chief grower Grower and product review board member	GM Operations	Technical Manager Chief Innovation Sustainability Global Marketing Manager Board member Chief Supply Chain Officer CEO Industry Rep	

Source: Author

The chain consists of a number of stages and an overview may be seen in Figure 5-1. At the producer level, there are around 2,500 growers located predominantly in the North Island who supply into the chain. These growers collectively produce product on around 12,000 hectares of land. Interview participants claimed that there were high levels of trust between themselves and focal company A, with interview participants from both stages of the chain describing the network of actors as a "…big family". There is no horizontal competition at this stage of the supply chain, and because the growers are located in hubs (due to environmental constraints), there is a large amount of informal communication between producers. There is also formal communication horizontally between producers and vertically with the focal company who host a number of workshops throughout the growing regions, as well as providing information through more traditional channels such as email.

There are 14 processor organisations that service the growers, and it is at this stage of the value chain that there is a high level of horizontal competition as chain participants compete to capture farmer supply. Further, there a range of governance structures such as cooperatives and limited liability companies present at this stage. Due to the competitive environment, actors at this stage maintain close relationships with producers and many growers are loyal to just one processor. An interview participant at this stage stated that "…about 80% of growers will stay with the same processor, while 20% are happy to look around". In terms of communication with the distributor, one interviewee stated that there was a lack of trust because they were "…not vertically integrated like other parts of the chain and this creates some difficulties in [the processor] being able to obtain pertinent information". In an effort to mitigate this, some actors from the processing stage hold monthly meetings to discuss issues and problems within the industry, or with the focal company. The processor also communicates directly with the producer around technical aspects of the product, as these have a direct impact upon product quality and the payments to the producers.

The main distributor of the chain is the focal company. The company operates largely as a marketing company and also coordinates distribution to market. The business also operates as a legally mandated single desk seller, where all horticultural produce of this type must be sold through this organisation. However, under New Zealand's fair-trading laws producers may apply for exemptions to independently supply both domestic and international markets. The organisation employs approximately 550 people and around half of the workforce is located overseas to establish and maintain key relationships with distributors and retailers in export destinations. Where the focal company lacks scale in export destinations, partnerships with other distributors allows produce to get to market. The aim is to ensure that win-win contracts are established and the brand story is communicated to the final consumer. Company A sets the quality standards for the product, and is able to influence the actions of producers and processors through both economic and non-economic incentives. Hence, the focal firm holds the power in this chain, and failure to comply may result in exclusion from participating. However, this is an unlikely scenario as entry into the chain requires a large capital investment, especially suitable agricultural land with the right soil and climate.

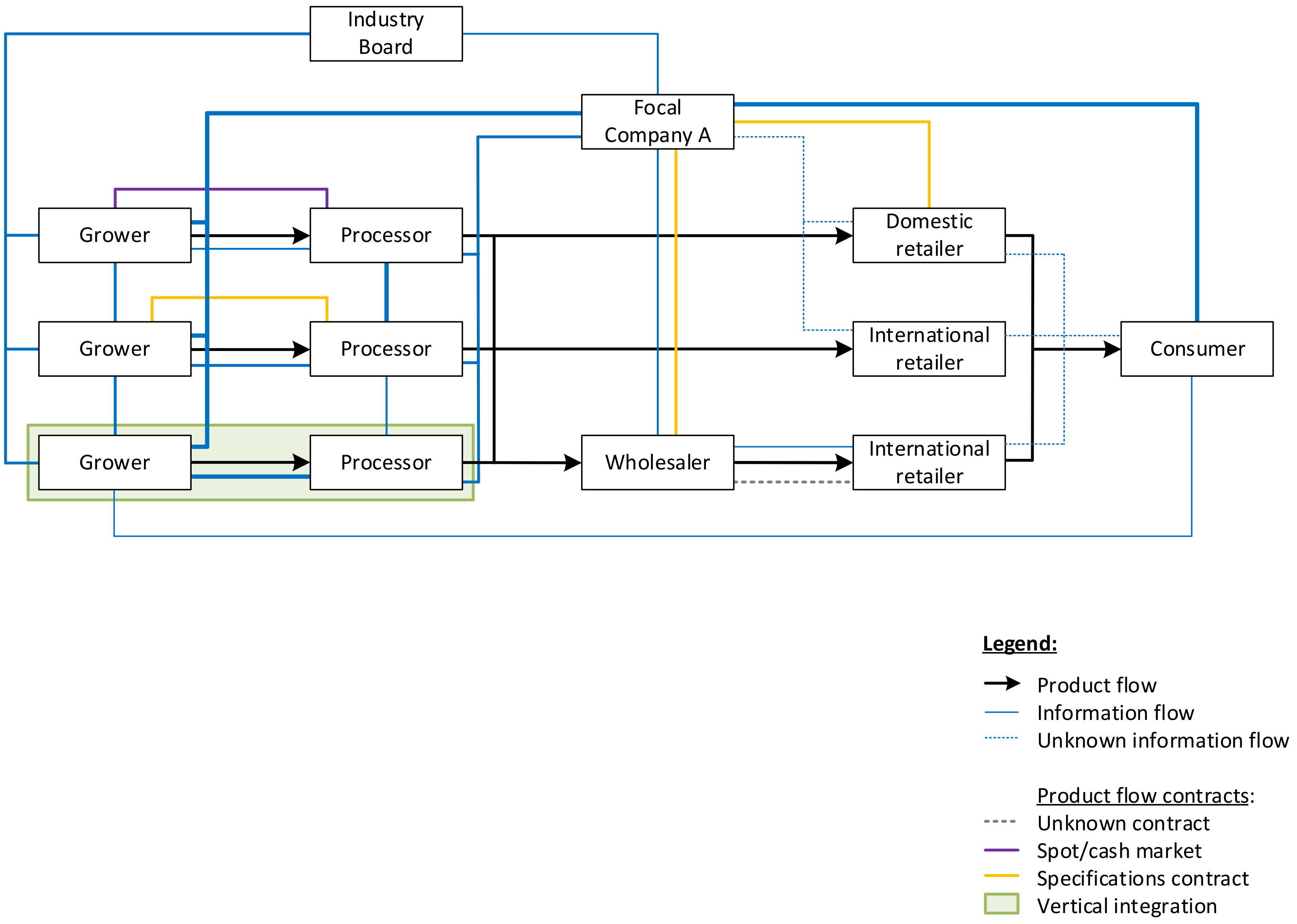

Figure 5-1 Value chain of case A
Source: Author

In terms of the retailer, limited information was gathered as no interviews were conducted at this stage of the value chain. However, the focal company did provide some explanation of the relationship between these two chain stages. Noting that it is here that the consumer meets the product. In-store branding is a way to co-create value for both the retailer and the focal company. Brand awareness is improved and a product of high quality is provided for consumption. Contracts are important and return clauses in contracts with retailers act as a key risk mitigation strategy, ultimately leading to greater confidence to stock the product and increased returns throughout the chain.

Within this chain the focal firm (Company A) has a close relationship with the final consumer. This is achieved through an extensive market research program funded by a large annual marketing budget. Information gathered from the final consumer is shared along the chain to all actors, and as the chain governance is centralised in nature, the lead firm is able to align incentives throughout the chain to ensure responsiveness, especially with the producers/growers. The outcome of this is a final product that contains desired consumer attributes and meets quality requirements, capturing double the world price of competitors on average for their product.

Outside of the product channel itself, but within the network of actors is an industry board. This is made up of producer, Māori, and processor representatives, as well as executive members of processors and the distributor, and full time industry board employees. The group holds some power in the chain, in terms of influencing actions and petitioning and lobbying to government. However, the industry board operates outside of the product channel, and has no commercial interest. Instead, they are funded by producer levies with one interviewee stating they are "…a good platform for advocacy and good discussion [with Company A] at the board level". The purpose of this industry board is to enhance producer interests in both political and commercial areas. The next sections will discuss the results of each of the key value chain attributes identified in the literature.

5.2.1 **Attributes**

5.2.1.1 **Market Orientation**

The focal company of chain A is committed to understanding the final consumer. One respondent stated that they have a "…fundamental belief in the need to be consumer centric. I don't believe that [Company A] are world class yet in understanding consumer needs". To improve this, the organisation allocates a large part of their financial resources into the marketing budget each year, and a significant proportion of this goes towards market research. This takes the form of consumer focus groups, tastings, and surveys both domestically and in international markets. Company A believe that there are very few firms in New Zealand to compare performance with, and that as a company operating in a world marketplace, they must look globally. Therefore, in order to ensure consumer centricity and compare performance, the chain benchmarks itself against other international fast moving consumer goods companies.

Company A coordinates the chain and drives the response to consumer demands through their incentive schemes (including with retailers) and research and development. This organisation shares the gathered market intelligence back upstream to the producer in an effort to align the goals and activities of actors. This is in the form of email communication, industry updates and other electronic information, as well as workshops. Information is then shared with the final consumer through marketing efforts such as in-retail displays and electronic advertisements. Further, in order to connect the producer to the consumer, tours are run for the general public, media, and other growers both domestically and overseas. For the consumer, a benefit is gained through a greater understanding of where their food comes from. For the farmer, they gain an understanding of the system and can see the results of their work.

The focal company bears the main responsibility for research and development (R&D) and holds a number of patents associated with product varieties. The ability of the focal company to co-create these innovations with different network members' results in both key resources and competencies: a main source of competitive advantage for the value chain. The chain brand is also important with a respondent stating that "…the brand is huge in competitive advantage". Up until the retail stage of the chain, brand control sits on a "…spectrum between centrally controlled [by the focal firm] and local autonomy [of focal firm employees working in-market]", with one overarching marketing message that may be tailored to fit each market destination.

In an effort to be able to quickly respond to consumer needs, half of Company A's workforce is located overseas in their main markets to ensure that the chain understands the local population. The value chain essentially produces a homogenous product in terms of a limited number of staple product varieties. However, being a natural food product, there are variations in product attributes such as size and dry matter content. By having staff overseas with knowledge of the local market, the focal company is able to tailor supply of product variety volumes and product sensory attributes. The chain has one overall brand story, but is better able to alter the marketing message shared with different segments, based upon in-market understanding of the offering.

5.2.1.2 **Information Sharing**

Company A acts as a leader and facilitates the majority of the information exchange that takes place throughout the chain. In terms of direct information sharing between the focal form and producers, information is shared via an online back-office system and a call centre that offers a support service for producers. The organisation also distributes a range of written communication via email, sharing information regarding operations and logistics, information on the market, industry, and grower payments, and updates following board meetings. Surveys also offer a way in which producers are able to share thoughts and feelings with the focal company. In addition to this, the focal company also host a number of workshops and road shows that act as a technical information sharing platform.

In terms of the processing stage of the chain, there are some information sharing difficulties between Company A and processors. While there is a two-way direct line of communication between the two stages, one interviewee stated that there was a lack of trust because they were not vertically integrated like other parts of the chain. This creates some difficulties for the processor being able to obtain pertinent information. In an effort to minimise this issue, some actors from the processing stage hold monthly meetings to meet and discuss issues and problems in the industry, or with the focal company. The processor also communicates directly with the producer around technical aspects of the product, as these have a direct impact upon product quality and the payments to the producers.

Finally, informal information sharing takes place horizontally between producers. The actors at this stage of the chain find that informal relationships help to build trust within the community. In general, the shared sentiment was that all can benefit from information sharing. The ongoing communication among producers has strengthened the existing relational bonds as well as helped to encourage collaborative relationships, and aid in learning.

5.2.1.3 **Incentive Alignment**

It was noted above that the focal company has the ability to respond to consumer demands however, one respondent stated that while "…growers are resistant to change… the quality system has been instrumental in change". The quality system referred to is the payment scheme for growers. There was a consensus by interviewees that the main incentive throughout the chain is the payment scheme. One participant highlighting that trying to get members "…on-board" with operational or varietal adjustments through encouragement and information sharing was not productive. Instead, the mantra "…do as I pay, not as I say" was stated by many of the interviewees employed by the focal company. Producers receive payment based on valued product attributes such as size and dry matter content, a proxy for taste. This is controlled by quality testing and harvest times for example, early versus late supply.

Monetary incentives are important in the chain however, there are also a number of behavioural incentives implemented. To help improve quality throughout the chain, producer workshops are periodically held. These generally take place on producer farms, with the purpose of demonstrating best practice to producers and encourage adoption of these techniques. The workshops are well attended by producers with the incentive being better production, and thus greater returns in the future. In order to connect and align the producer to the consumer, tours are run for the general public, media, and other growers both domestically and overseas. For the consumer, a benefit is gained through a greater understanding of where their food comes from. For the farmer, they gain an understanding of the system and can see the results of their work.

The presence of an industry board also works to align incentives. This organisation consists of a supply group and an industry advisory committee. They advocate for growers and aim to protect farmer interests. This is done through a multi-channel approach. The board facilitates conversations with government and advocates for legislation on behalf of growers. They also provide weekly updates and industry publications, as well as holding meetings between representatives from different chain actors. In this way, the board acts to ensure that the focal company is implementing good governance practices. This is crucial to the survival of the chain as the focal company acts as a single desk seller. The presence of an industry board provides an incentive for the focal company to act in the best interests of growers.

5.2.1.4 **Channel Leadership and Integrated Network Governance**

Company A act as the power holder in the chain. One interviewee stated "…we like communication between all parties and open discussion, but at the end of the day we will push if we need to get something done". The focal company operates a flat hierarchical structure in order to promote trust and open communication. This firm manages the chain in such a way as to remove as much competition as possible within the chain. The exception of this is at the processor stage. This stage competes for producer supply based upon percentage of product loss and price, as well as service packages for producers. Within this part of the chain there are a range of different governance structures and each operates autonomously, but the competitive environment acts as a behavioural control to stop opportunistic behaviour by processors.

The processor believes that their power as very minimal. The market leads the direction of the value chain, and so there is "…huge trust in [Company A] by the farmers to communicate this". The processors work closely with producers, however, "…have very little power to change anything if [Company A] choose. All we can do is have a round table discussion". The industry group holds some power in the chain, however they operate outside of the product channel, and have no commercial interest. Instead, they are funded by producer levies and one respondent suggested that they are "…a good platform for advocacy and good discussion with [Company A] at the board level".

While Company A acts as the overall power holder within the chain, there are times where the organisation must partner with others to mitigate the risk of power loss. This is particularly true in the cases where Company A lack scale - and therefore power – into overseas markets. In this instance the focal company will partner with a distributor in order to gain access to retailers. The belief is that these arrangements are win-win: "…the distributor gets access to a world class product, and we get access to the market". In order to maintain control further upstream, the focal company operates a commercial board, as well controlling the licensing of varieties to the horticultural producers.

In terms of social contracts within the chain, many respondents referred to the industry as a "big family". Interview participants also notes that there is a lot of trust throughout the chain. This was fostered by the existence of an innovation team operated by Company A, to aid producers and help to give clear direction to help improve return on investment. Trust is then reinforced by the returns that chain members receive. The size of the chain, the importance of trust between members, and the effort to eliminate competition from the chain has resulted in the view that "…opportunistic behaviour is not tolerated". The number of processors stage within the industry means that switching costs are relatively low for producers. On the other hand, the capital investments of processors and the importance of operating at capacity has very large implications for any dishonest behaviour.

5.2.1.5 **Value Co-creation**

The focal company's main value co-creation is in the form of research, co-ordination, and marketing. The organisation owns the intellectual property within the chain and sells cultivar licenses to farmers. Hence, the focal company co-creates value with science laboratories in terms of research and new product development, but also with growers who are responsible for growth and harvesting of these cultivars. Further, Company A employs an innovation team that works with growers to improve on-farm innovation and best practice. In terms of coordination once produce has been processed, the focal company is able to transport product to larger markets using their own third party logistics contracts. Through collaborative arrangements with this partner, risk is reduced in terms of spoilage and greater returns through less product waste, resulting in customer satisfaction for the focal company, and repeat transactions for the logistics provider.

Value co-creation takes place between the focal company and retailers in three ways. First, with a large number of the focal company's personnel located overseas, key account people are able to establish, maintain, and further develop business relationships with key wholesalers and distributors. Second, where possible, Company A implements in-store branding and product placement. The goal is to improve brand recognition, and where tastings are held, employees gain direct access to the final consumer. In return, the supermarket is able to sell a product that is deemed value-added by the consumer when compared to other companies selling a similar product. Third, the focal company operates a unique claims process with retailers. This model results in less monetary risk taken on by retailers, which is able to be passed on to the final consumer through lower prices, without compromising sale margins.

5.2.1.6 **Resilience**

Interview participants for Value chain A responded to the interviewers by identifying the major risks throughout the chain. The chain produces a land-based, perishable product vulnerable to many risks, particularly environmental. The growth of produce is contingent upon factors such as hours of sunlight, soil structure and mineral composition, pest control, and rainfall. As a result of this, many resources are directed towards research that works on farm design and cultivars, including specialised teams within the focal company. Additionally, not all production is located in New Zealand. Whilst the company is New Zealand owned and operates as a single desk seller, supply contracts are also used in overseas countries such as Italy, as a way to ensure year round supply to market.

The competitive environment poses a risk, where some safeguards have been implemented throughout the chain. Intellectual property is of great concern to the focal company as it plays a key factor in the chains competitive advantage. To protect this, innovation and quality control is important. Innovation results in best practices and a superior product offering, and quality control ensures that product received by customers is within specifications. Quality control is largely upheld by the processing stage of the chain, where returns are contingent upon percentage of loss and price per tray. To stop opportunistic and unethical behavior, the processors have supply contracts with the focal company, and the distributor also operates an accountability scheme that rewards processors that meet, or exceed strict quality specifications.

As consumer tastes and preference are constantly evolving, multiple interview respondents identified changing consumer trends as a risk. In an effort to mitigate this, the focal company implements two key strategies. The first of these is consumer research. A new product takes between seven and fifteen years to get to market, and significant capital investment. Therefore, it is important that the focal company is aware of consumer preferences and integrates these into new products. Second, the chain operates in multiple markets. As on respondent stated "…all our eggs aren't in one basket". Operating in multiple markets allows for variations to be made on volumes, produce size, and cultivars in order to best meet consumer demands.

5.2.1.7 **Brand Ownership**

Brand ownership and control over the brand story is maintained by the focal company from the producer, through to the final consumer. The ability of Company A to do this is largely reliant upon the single desk structure. The chain operates a centralised governance structure whereby the focal company is responsible for making all overarching strategic decisions. However, this is not done in isolation, as other actors, and in particular growers, are given the opportunity to "…have a say". As a respondent from the industry board stated: "…the single desk system works because farmers like it. If they didn't, they could vote it out".

The marketing propositions in-market are dependent upon the stage of market development and thus, consumer knowledge. Therefore, while the overall message remains the same, the story is able to be tailored to each market destination. If the product is new to the market, basic product attributes are highlighted. However, where the consumer is more knowledgeable, the focal company is able to build sophistication into the brand story, particularly around health benefits and / or production sustainability.

5.2.2 **Case Summary**

The presence of a single desk seller legislation places this horticultural value chain in a unique position. The chain operates in many overseas markets, and has been able to achieve economies of scale through the single-seller system. The focal company is also the power holder in the chain, largely exercising non-coercive power. Comments from various interview respondents suggested that there is a large amount of trust between actors (with the exception of Company A and processing stages). There is also a great deal of information sharing across the different stages, largely facilitated by the focal company of the value chain. This includes consumer value signals, and these signals are aligned to production through the implementation of both economic and non-economic incentives. In analysing this case, each of the value chain attributes was examined individually and a summary of these is shown in Table 5-3.

Table 5-3 Summary of Case A value chain attributes

Attribute	Summary
Market Orientation	There is a "…fundamental belief in the need to be consumer centric". Supported by consumer research, product research and development, information sharing, and production incentives.
Information Enrichment	Information sharing takes place both horizontally and vertically in the chain. This is in the form of electronic communication and also through face-to-face in terms of workshops, periodic meetings, and informally. As a result, there is a large amount of trust in the chain.
Incentive Alignment	The main incentive in the chain is financial, with the mantra "…do as I pay, not as I say". This is also supported by non-financial incentives such as workshops to demonstrate best practices, and an industry board that advocates for growers to the government, and focal company management board.
Channel Leadership and Integrated Network Governance	Company A is the power holder in the chain, and coordinates the vision for the chain. Where this firm lacks scale, partnerships with other wholesalers enables market access. Trust is important in this chain and is fostered not only by information sharing, but also a focal firm innovation team that aids producers to improve returns on investment. Consequently, there is a view that "… opportunistic behaviour is not tolerated".
Value Co-creation	Research, co-ordination, and marketing are the main area of value co-creation in the chain, facilitated by the focal company. This involves partnering with research labs, working with producers, establishing win-win contracts between the focal firm and retailers, and in-store branding and product placement.
Resilience	Resilience was built into the chain through research around production practices, quality control, and ownership of intellectual property. The focal firm also partners with growers in the Northern Hemisphere to ensure year round supply to market. Consumer research was identified in a key tool to ensure responsiveness to changing consumer demands, and operating in multiple markets was viewed as a risk mitigation strategy.

Brand Ownership	The single desk structure was an enabler of maintaining brand ownership from production to consumer. With one firm co-ordinating the marketing message, there was the ability to tailor the brand story sold to consumers based upon the stage of market development and consumer knowledge.

Source: Author

5.3 Value Chain B

Value chain B is a small niche meat value chain serving both domestic and international markets. Due to the size of the chain, many of the business entities are owner-operated. Consequently, interviewing the owners of firms at different stages along the chain resulted in interview participants that held extensive knowledge of the workings of this value chain. One interview was conducted in July 2018, and the remainder were undertaken in September of the same year. A description of interview participants may be seen in Table 5-4.

Table 5-4 Value chain B interview participants

	Value Chain Stage			
Value Chain	**Producer**	**Processor**	**Distributor**	**Retailer**
A (n = 8)	Owner Owner Owner	Owner	Owner	Assistant Category Manager Category Manager Owner

Source: Author

This value chain supplies into both domestic and international markets and overview of the chain may be found in Figure 5-2. Producers in the chain are located in a geographically close area and must attain environmental verification before being able to participate. This was introduced after concerns about nitrogen leaching into locally significant waterways and a lake within the catchment area resulted in a livestock and nitrogen 'cap' being imposed by local government. Consequently, producers were forced to move away from traditional farming practices. After a series of discussions with local government, action groups, and other producers, Focal Company B worked to establish a new value chain, re-branding their meat to meet changing consumer demands and capturing a premium for doing so.

Relatively small in scale, there are around 10 producers who supply into the chain. Company B (focal company) is situated at the producer stage and coordinates supply into the chain from other producers. Being a famer led value chain, this firm steers the direction of strategy in terms of vision, and works to maintain close relationships with retailers, distributors, and marketers to ensure that the final product meets consumer demands. This is critical to the survival of the value chain as the produce being sold is of high value and niche production. In this sense, the focal firms acts as the chain leader. Yet, chain actors at all stages maintain autonomy and have the freedom to participate in other chains, while relationships within the network have been established based upon a set of shared values such as caring for the environment, hormone free, and grass fed. This set of common values motivates collaborative relationships within the chain as trust becomes and implicit part of partnerships between actors. As a result, many of the contracts within the chain are informal, only based upon a handshake agreement.

At the processing stage of the chain, a family owned processor holds a contract for small production runs. This processor operates in the niche market space and believes that there is little economic added-value in the processing activity itself as compared to mass production. However, the firm has agreed to do small process runs as long as the firm maintains a minimal marginal price, as compared to the meat schedule. The foundation of the relationship is a shared values system with producers, with Company B terming the chain a “coalition of the aligned”, as well as other operating benefits such as access to specific export markets. The product is currently exported to one retailer, and this retailer has specific demands. Hence, the processor and retailer have worked closely together to co-create value through education around meat cut requirements.

The distributor was initially established to supply meat cuts to local restaurants. Today the company is focused on supplying premium cuts to local restaurants, supermarkets and subscription services under their own brand name. The subscription service retailer operates on an e-platform and offers a grocery service, supplying New Zealand food. Their organisation believes in supplying sustainably grown local fresh produce. The meat in the chain is supplied to this business under two brand names, focal company B’s own brand, and the distributors brand; both are positioned as premium value-added products.

The fourth product channel is through an overseas retailer located in the Japanese market. The owner of this firm believes that supplying nutritious meat produce for final consumers is contingent upon good animal welfare and environmental stewardship. Further, as this retailer is in direct contact with the final consumer in the overseas market and holds economic power, they have strict quality standards and required meat cuts that must be adhered to. In this sense, they act as the gatekeeper to the market. However, despite this the retailer maintains close collaborative relationships with Company B and other chain actors.

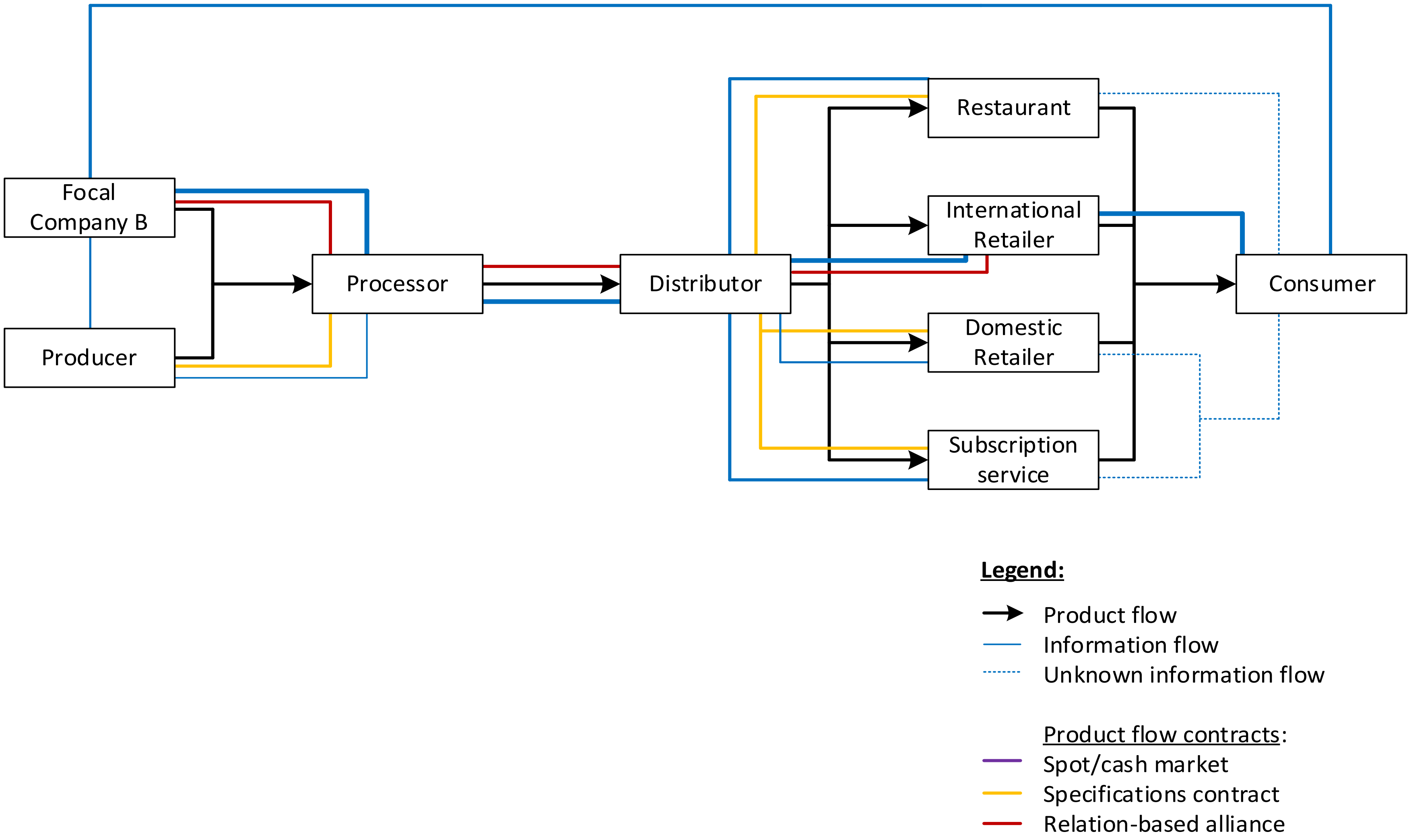

Figure 5-2 Value chain of case B
Source: Author

5.3.1 **Attributes**

5.3.1.1 **Market Orientation**

The focal company resides at the producer (farmer) stage of the chain. Due to the small scale of the value chain the owners of the focal firm have stated that "…we don't have a large budget for marketing". Instead, the chain has relied largely on public engagement through tastings and showcasing, personal communication, the firm's website, and media attention. The media have been particularly important in raising consumer awareness of the chain's product offering by transmitting the chain story via platforms such as television and magazines. Further, one of the supermarket interviewees stated that they hold formal focus groups through a third party provider. This is in an effort to understand consumer preferences and ensure they are stocking products that consumers demand.

Each stage of the chain engages in attempting to understand the final consumer to varying degrees. At the producer level, the majority of firms that supply into the chain are disconnected from the end consumer. The different businesses work to produce animals that meet specifications set by the distributor, who communicate with the focal company. The focal company interview participant stated "…we put a lot of work into understanding why our consumers are buying our products", and this could be distilled into three different consumer segments: local consumers, environmentally conscious, and health conscious. The distributor works closely with their customers to ensure that the meat cuts supplied are in demand and are in-line with consumer segment preferences.

5.3.1.2 **Information Enrichment**

Company B drives communication stating that "we are relationship managers, not farmers" and information sharing is a key factor in the chains ability to continue operating. These are largely in the form of face-to-face meetings and phone calls and are coordinated by the focal firm, vertically between the producer, processor and distributor. However, whilst the focal company is heavily engaged in information sharing with close chain partners, other producers felt that this could be better. One farmer stated that they had very limited contact with the processor other than receiving feedback that "your stock was good". They commented that this was challenging as they are "keen to be involved" in the chain, but expect more communication, citing an example of a change in livestock diet to improve meat marbling and receiving no feedback for this. The sentiment was shared by both producer interviewees outside of the focal firm, who expressed concerns that other value chains competing with this chain are able to provide feedback, and reward farmers for meeting standards.

Information sharing between the retailer and processor is important. The retailer stated that they are not the perfect customer for meat companies as "…we won't take the whole carcass. This is what sells. This is what we can fit in". Further, the retailer stated that they often place orders once or twice a week to ensure constant supply of desired meat cuts. However, information sharing is especially crucial during the pre-Christmas period as forecasts are needed. This period can "…be a bit tense" as it coincides with the start of the meat season, increases in consumer demand, and fluctuations in pricing. One retailer stated that there were "no problems with communication up and down the chain". However, they acknowledged that they did not communicate directly with the focal company, or other producers in the chain.

Company B's website is consumer facing and highlights the development of the chain and brand story, awards received, chain producers, and retail stockists. One interview participant from this business stated "…we wrote our story for the website when we finally set one up". Retailers that stock the value chain's product also host consumer facing websites to communicate with customers. One retailer stated that they do some advertising with social media, and at the time of the interviews were looking at other potential marketing avenues. Some of the retailers also hosted websites and one of the retailers stated that they used social media to engage with consumers and receive feedback. The subscription service retailer used an online platform to sell products and stated that they were able to gain immediate feedback from consumers through the customisation of orders.

5.3.1.3 **Incentive Alignment**

A key incentive in the chain was price. One retailer explained that producers receive the schedule meat price from the processor, and receive a premium above the schedule price from the distributor. This makes premiums in the chain visible and more cost effective for the processor who is running small product lines for the chain. Further, there is a floor price for producers, even if the schedule price goes below it. The retailer receives the purchase price from the distributor, and then add their own mark-up. A retail participant stated "we trust our suppliers to be reasonable and fair" and claimed that the business only increases the final purchase price when needed. This was followed with "we have a good customer base that appreciate a quality product. Not cheap imported Australian product. We don't do that". Hence, the brand is positioned as a premium product and the visibility of premiums throughout the chain improves the perception of value appropriation fairness by actors.

Whilst the financial incentive was explained by a number of respondents, it appeared that the behavioural incentives were just as, if not more important to chain actors. The processor for example, stated that "…the value for us is in the association, [there is] essentially no extra financial return over other suppliers, but improves our reputation". This actor stated that the business has a farm-to-fork mentality, but enjoys its place in the middle. The distributor in the chain explained that they were able to achieve a 25 cent premium per kilogram over the schedule meat price, but stated that this is "not enough, but a step in the right direction". In this case the incentive more about was aligning values and supplying quality cuts to high-end retailers than the financial returns.

Producers outside of the focal company consistently argued that the premium gained from supplying into the chain was either not high enough, or barely covered costs. The three main arguments put forward by these producers were first, the existence of other value chains offering higher premiums for livestock. Second, the competition among producers to secure weaner stock supply (young cattle who are no longer drinking milk). Third, the cost trade-off between producing younger stock who produce a higher meat quality, but are expensive to finish, or selling older stock whom are much cheaper to produce but gain a lower premium. Instead, their incentive for remaining in the chain was around being recognised as farmers who care for the environment, taking pride in producing a product that is "special", and pride in the quality of stock leaving the farm gate.

5.3.1.4 **Channel Leadership and Integrated Network Governance**

Company B founded the chain and leads in terms of vision, but acknowledge that there are shared governance roles with other producers and the distributor. The chain was set up as an experiment in response to the changing environmental constraints in the area, and the producers suggest that the chains existence today is due to "…dogged determination". Personalising connections is crucial and the focal company believes that this is the governance structure, stating "…we have given time to the relationships…. working with people of integrity who could have taken advantage of our fragility, but didn't". This sentiment was echoed in interviews with other chain actors, such as other producers who stated that there were no formal contracts, their participation in the chain was based mostly on the relationship and association.

In terms of collaborative relationships, the processor stated that there is a "…dedicated team from farmer to end user". The example provided by the processor was the first shipment of meat to Japan. The owners of the focal company travelled with the meat shipment and met with the owner of the Japanese supermarket. Whilst economic incentives may not always be as desirable as actors expect, the close relationships enabled by the focal company have so far provided stronger bonds than economic incentives. Two examples provided by interviewees were of stock agents from another value chain having the ability to offer a higher spot price for livestock, and competitors approaching chefs in restaurants with a cheaper meat price. In both cases the strength of the relationship and open communication between chain actors and 'believing' in the vision of the channel was crucial in preventing actors exiting, and entering into other value chains.

The distributor suggested they lead the chain, and stated that they have full rights to the unique selling point of the producer. Hence, this actor holds economic power, and is largely responsible for packaging design, marketing, and developing relationships with retailers. However, this business also acknowledges that without the focal company (the farmer) there would be no chain. As in the case of other relationships, one of the interviewed retailers stated that there is no written contract with the producers, processors, or distributor in terms of pricing. If the consumer price is to increase, the retailer provides a four week courtesy notice to the distributor. This is not done to improve margins, but rather to ensure open communication with chain partners, and the retailer believes they offer competitive pricing on proteins relative to other retailers. Therefore, in this value chain, relationships are strong, firms act with autonomy, and there is a high degree of trust built into activities. Indeed, chain wide governance is achieved through democratic decision making and collaboration.

5.3.1.5 **Value Co-creation**

Value co-creation takes place at many stages of the chain, beginning with cattle breeders. Some producers have relationships with breeders in the far north of New Zealand. Due to climatic variations across the country, these breeders allow producers to expand their production, allowing supply into the chain later in the season. Once the beef enters the chain, the processor is able to co-create value with the distributor. They work closely in terms of packaging and communication with the Japanese retailer. For example, representatives from both businesses have travelled to the supermarket, and the representative of the processor is able to speak Japanese, allowing for better communication and relationship building through the possession of bilingual skills.

The relationship that chain members have with the Japanese retailer was an example given by many of the interviewees as the key value co-creation activity in the chain. The relationship was created when a medically trained supermarket operator concerned with the fat content in Wagyu beef was looking for a healthier alternative. This owner approached the focal company and tested the meat over a 12 month period and concluded that the beef produced was "fantastic, best grass-fed beef in the world". The CEO of the supermarket is a values-driven operator, working with producers to reflect the chains' values. Members upstream in the chain work to supply 10 carcasses a week to this retailer. The processor pays producers the schedule price, and the distributor then pays a premium to producers, allowing them to retain a margin. This is especially important for supplying the

Japanese market as the packaging costs are higher than supplying domestic retailers. For the processor and distributor, they gain access into the Japanese market, which has "…high-end potential" and "…this is a good start at investing in the future". All parties involves have benefitted from this association with each other, and invest in the relationship.

In terms of the domestic market, restaurants were individually approached, with the focal company stating "…we went to chefs and restaurants with a story and a concept they didn't know that they wanted". The relationships that were established continue, with the restaurant selling a high-quality, locally sourced product, and the value chain improving brand recognition with final consumers. In the retail sector, one of the supermarket interview participants stated that they were unable to sell their own store branded meat and looked for a partner. The view of this particular retailer is that supermarket brands and other brands must reinforce each other, and believed that this value chain provided the "fit" they were after. The added value for the focal company is the profile of the producer's brand on the retailer's website, and in-store tastings with final consumers.

Subscription services offer some value co-creation in the chain. One of the issues as highlighted by interviewees was trying to ensure more of the carcass was used. A subscription service interview participant stated that "…supermarkets have driven the integrity out of food… [we are] here to put that right". This subscription provider aims to supply fresh premium produce to consumers and the product supplied is the "top of the line for our consumers". This retailer also takes some meat cuts that are "a little unusual", that is, not generally available in supermarkets. As a result, this service is able to sell a premium product, and the distributor is able to sell a cut of meat that would otherwise be difficult to on-sell.

5.3.1.6 **Resilience**

Outside of the environmental risks associated with agribusiness value chains, one of the major issues in this chain is the use of the whole carcass. The chain is currently configured to sell a high-value premium product. As a result, there is some difficulty in using the whole carcass and the distributor is currently exploring different value chains and sells to multiple supermarket retailers, food services, food manufacturing organisations, and retail subscription services. An example of one of the ways that the chain has adapted to this is in the case of trim. This is a by-product of meat processing and accounts for around 30% of the carcass. Trim is able to return a premium that is able to be partially passed on to producers. The distributor is currently working with pet food companies, but believes that this negatively affects brand image, and so they also sell this by-product to a major pizza chain in New Zealand. In turn, the processor is also exploring other value chains to sell trim in to, and at the time of the interviews was negotiating with a delicatessen chain to create a meat sauce.

5.3.1.7 **Brand Ownership**

The distributor in the chain markets the majority of the product under its own brand as well as through the producer's own brand. Both are sold to the retail stage of the chain with a similar story such as grass fed, healthy, and/or organic. This firm currently holds the values of innovation, family, respect and integrity, and exceeding expectations, and actively seeks to align with producers of similar values. However, when it comes to relationships downstream at the retailer level, the values become less important.

The majority of retailers in the chain are actively seeking products that align with the story projected to final consumers, but this is not always the case. One New Zealand supermarket retailer stated that the "…story was good to have", however, they were unsure how important this is to the consumers buying it. As the respondent stated: "…[we] don't drill down much into the customers themselves". This particular retailer uses customer orders to identify trends. In contrast, another domestic retailer stated that their supermarket has a unique story that it sells to customers. There is an importance placed upon the consumer experience and the retailer aims to align with suppliers that hold similar values and source "…quality and artisan producers". This particular retailer also claimed that the product brand actually had low awareness from the consumer and so the retailer assists this through telling the story in brochures and in-store to ensure that the brand story is consistent and carried from producer to the final consumer.

5.3.2 **Case Summary**

Case B is a relatively small value chain selling specialised meat cuts to the domestic and international market. The chain was established after legislation forced farmers to reduce fertiliser and stocking rates. The resulting chain is one that produces a value-added product, and thus, farmers are able to remain profitable. However this is not without its challenges, and a summary of the value chain attributes may be seen in Table 5-5.

Table 5-5 Summary of Case B value chain attributes

Attribute	Summary
Market Orientation	Due to the small scale, the focal firm relies on public engagement through tastings and showcases for customer feedback. Attempts to understand the final consumer is undertaken by all stages of the chain. Production and processing incentives help the chain to respond to changing consumer demands.
Information Enrichment	There is a large amount of information sharing between the Japanese retailer, distributor, processor and focal firm. However, producers commented that they felt there could be better engagement, particularly from the processor. Information sharing was done through standard means such as email, phone and face-to-face. Customer facing websites were also a tool to share information with the final consumer.
Incentive Alignment	One key incentive in the chain is price – the ability to capture premiums above standard market rates. However, the shares values of chain members was considered more important than financial gain. These were around the environment, nutrition, and reputation and association.
Channel Leadership and Integrated Network Governance	The focal firm act as leaders in terms of vision. However, the distributor held economic power and was responsible for packaging design, marketing, and relationship development. There was an understanding among chain members that all participants held crucial roles in working to deliver a high quality premium product to the final consumer.
Value Co-creation	The key co-creation activity took place between the Japanese retailer and other chain members to ensure that meat cuts met consumer standards. Other co-creation relationships have been established in an effort to reduce waste and utilise as much of the carcass as possible.
Resilience	Aside from continuous supply (due to seasonality), interview respondents suggested that one of the major issues faced was the utilisation of the carcass, and relationships were being developed to address this concern.
Brand Ownership	Brand awareness is relatively low in this chain. The distributor markets the majority of the product supply under its own brand, and a small proportion under the producer's brand. There have been some efforts to remedy this through the development of customer facing websites, social media engagement, and having brochures at the retail stage to highlight the 'brand story'.

Source: Author

5.4 Value Chain C

Value chain C is unique to the other cases within this study for two reasons. First, the chain produces a non-perishable land-based product. While not an agri-food product like other cases within this research, the chain still resides within the primary and secondary industries. Further, the study of a non-perishable product potentially provides an additional perspective for the study and allows for more generalisations to be made. While this chain may not face the same lead time constraints as the other cases, there are other similarities between all land based chains. For example, constant supply can be a potential issue as the availability of inputs in this chain is dependent upon market prices. Second, value chain C is largely coordinated via an e-platform. This enables integrated information sharing among the processor and retailer, resulting in value co-creation relationships between these actors. While a portion of finished product is distributed through traditional retailers, the e-platform acts as integrated system between inputs, processors, and the consumer. Hence, there is an avenue for direct processor to end-user distribution, resulting in decreased costs and closer connectedness with the consumer.

During the course of the research phase, four interviews were conducted. While it is acknowledged that this is a small number of participants, the chain itself is a niche system producing a highly specialised product, and it is believed that the sample size is adequate to gain a good understanding of the whole chain. The participant profile consisted a process expert, and two general managers who had a very good working knowledge of the chain, as well as one retail owner who was able to provide some insight into consumer habits and the effectiveness of the chain. These interviews took place over a three month period from February to May 2018, and a description of interview participants may be seen in Table 5-6.

Table 5-6 Value chain C interview participants

Value Chain	Producer	Processor	Distributor	Retailer
C (n = 4)	(no access)	Process expert	General Manager Former General Manager	Owner

Source: Author

An overview of the value chain may be found in Figure 5-3. The upstream chain begins with mining companies and one of the largest difficulties for the value chain is securing consistent supply. The raw material is a by-product of another extractive industry, and is only pursued when the prices of the other mineral allow the mining. It is not deliberately targeted. Further, the miners need a licence from the owners of the mineral to extract, thus not all producers are allowed to extract the raw material, again limiting supply. Due to the high levels of variability and uncertainty, excess raw material inventory is accepted and stored by the processors when there is an over-supply of inputs into the value chain.

The product is a value-added niche offering, requiring specialist skills to process. The processors are largely sole trader artists who place raw material orders through an integrated e-platform. The processing stage is not concentrated within a particular provincial region, but spread over the length of New Zealand. Processors are specialists that are registered with the Iwi[4] that holds customary rights to the raw material, and their work is checked for quality control and appropriateness of design, by the focal company C. Indigenous cultural considerations are paramount for this chain.

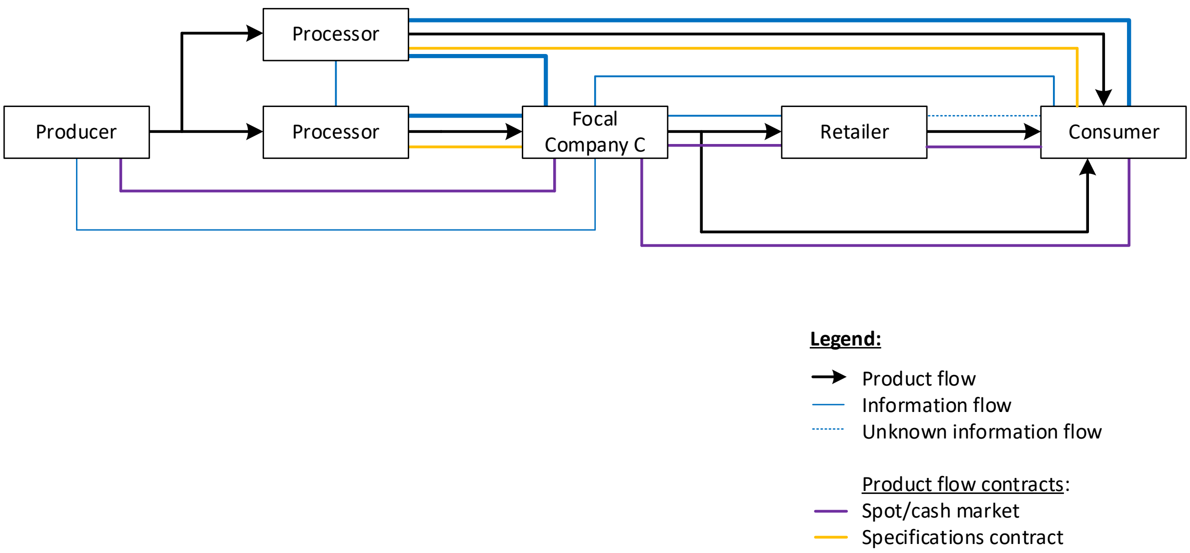

Figure 5-3 Value chain of case C
Source: Author

The sole distributor in the chain is Focal Company C, whom is responsible for quality control, packaging design, marketing, and order fulfilment. This coordination function is aided by the use of an ecommerce platform. The platform is used by all actors in the chain such as processors to place orders for raw material, retailers who are able to order items from the catalogue, and end consumers

[4] Extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory (Moorefield, n.d.-a).

who are able to place orders directly with specific processors. This ecommerce platform is a critical tool in the chains success as the focal company has a very small number of staff, yet a large number of functions.

There are a small number of retailers that operate within the value chain, and these are largely targeted towards tourism consumers. The retailers’ main form of communication with the distributor is through the ecommerce platform, where traders order items from the main catalogue. This catalogue provides an inventory of item designs available for purchase, and is reviewed every two years by both the processors and distributor. For the final consumer, there are two avenues in which a purchase may be made. The first is the purchase of a catalogue item that may be purchased either direct from the distributor, or through a retailer. The second is to custom order a unique product from a chosen processor to be made when the demand is received. This may be co-designed to add flexibility to the processing stage, and results in a much more personal product offering, reflecting a near full postponement supply chain strategy (Pagh & Cooper, 1998).

5.4.1 Attributes

5.4.1.1 Market Orientation

The process of aligning designs and product lines with consumer preferences is predominantly carried out in relation to catalogue items, which contains the entire product range of the value chain. Demand is determined by the sales information collated via the online platform and communication with the retailer. The chain is relatively centralised and bi-annually focal company C will review the sales of each of the product lines and communicate this to processors for review and submission of new product designs. These are then incorporated into the available product lines and consumers are able to purchase these either through the retailer or the online platform.

The product offering is not homogenous and processors act individually. As a result, the processors have creative freedom and the outcome is a range of uniquely designed product offerings. Processors are also able to enter into contracts for uniquely designed products. In this instance, the processor works directly with the final consumer to ensure satisfaction and quality outcomes are achieved. In addition to the product designs specified in the catalogue for individual final consumers, Company C also enters into contracts for commercial entities. In these circumstances, Company C will liaise with processors to ensure quantity and quality are achieved.

5.4.1.2 **Information Enrichment**

The value chain is largely coordinated through the use of an integrated virtual information technology platform that coordinates nearly all activities, orders, and payments. This platform has a front-office for retailers and consumers to place orders, and also a back office for processors to coordinate raw material acquisition. Aside from this, the main form of day-to-day communication throughout the chain is via email. The chain is small in scale, with Company C relying largely upon one individual chain member for a range of managerial tasks. Consequently, there is some friction among actors in regards to information sharing and communication. The retailer feels that "…communication is very limited" and that "…some other retailers had a privileged connection" to Company C. In contrast, the general manger felt that the communication with processors and retailers, and the ability to personally meet with other actors in the value chain were two activities constrained by a lack of time.

Aside from day-to-day communication, some conversations are held via a telephone or face-to-face. These forms of are generally enacted when needing to deal with sensitive issues such as problems around actors not meeting quality standards or tracing requirements. The consensus by the two general managers was that this is a tough task as there is a need to be strict on these matters, while not alienating the actor. As one respondent stated, it's about "…having the conversation in the right way". This is important as the processing community is small, and there are informal social networks among actors at this stage of the chain.

5.4.1.3 **Incentive Alignment**

Processors are bound into the chain through a licensing agreement. A recent change in operations saw a commission based system replaced for a flat rate system for inputs, dependent upon the quality of the raw material. As a result, firms at this stage of the chain are able to secure larger margins for finished products than previously, as they set their own prices. Hence, there is strong economic incentive to remain in the value chain. More informally, processors receive positive feedback from the focal company manager, and a further example was given by a respondent of one processor being invited to a charity ball function in recognition of their supply of unique finished products to the charity.

Despite some incentive alignment in the chain, the retailer interviewed felt let down by the payment incentives and the focal company in general. They claimed that there is "…no opportunity to set prices" whilst trying to keep prices as close to the chain's retail website as possible as they believe that they are competing with the online retail platform controlled by the distributor. Another complaint was the lack of recognition by the focal company when the retailer was able to meet consumer's expectations as self-motivation and maintaining a high-level of customer experience was important to this firm. Further, the retailer felt under-valued by the lack of response from the focal company and the unwillingness to incorporate feedback from them, in terms of which products were selling well or desired by consumers.

5.4.1.4 **Channel Leadership and Integrated Network Governance**

The focal company is governed by a board who are in control of strategically significant decisions, and a manager who is in charge of daily operations. This manager felt that they were able to make changes to the value chain, however required a "…sign-off from the board". The retailer feels that the distributor holds the power in the chain as they coordinate the operational requirements, and sell to relatively small retailers who do not engage in horizontal communication with each other. However, as the offering is a licensed product, the retailer is reluctant to challenge the locus of power or negotiate for change in fear of negative supply consequences. This is evident in terms of ordering, where the retailer felt that there was an "…uneven playing field" amongst this value chain stage as there were some unofficial personal channels that some retailers were able to access and gain additional information around availability of inventory. This information asymmetry led to additional transaction costs for some retailers who spent large amounts of time on the e-platform due to the limited availability of stock. The result of this the retailer believes, is a negative impact upon the reputation of the retailer as there is a lack of adequate supply.

In terms of processors, they are contracted for a two year period for their work. Thus far there have been no breaches in contracts or situations where legal recourse has been necessary. The contract tool provides a way for focal company C to centralise power within the chain as the processors are unsure if their designs will be included in subsequent catalogues. However, to date, the chain has been growing in size and no product lines have been discontinued. In other words, there have been no circumstances in which processors have been unable to renew supply contracts.

The processor expressed that they felt they had very little power, or control in the value chain. There was some, but limited horizontal communication between processors, and no formalised way to communicate across the value chain, which the processor felt was needed. This was an interesting finding given the expression of one distributor interviewees stated that "…the reason for the business's existence was to create opportunities" for those involved in the chain. However, the distributor also believed that there were open lines of communication that extended from the processors through to the retailer.

5.4.1.5 **Value Co-creation**

At the processor stage of the value chain value is co-created between the processor and distributor. The brand is maintained by the distributor, however, the processors submit designs for the product catalogue. To protect from opportunistic behaviour, the processors are "…prohibited to sell catalogue designs outside of the [value chain] system, or from using [company C's] branding outside of catalogue items". The ability of processors to sell custom designs through the ecommerce platform has led to additional distribution channels and additional income for processors.

Value is co-created at the retail stage of the chain through in-store presentation, social media advertising, and through the development of bags and other attractive packaging for the final consumer. However, the retailer also noted that there was "…little guidance from the managers of the value chain on how products should be presented in the store". The lack of communication in this area is interesting as there is the potential for a loss of value or a dilution of the brand story, despite the distributor maintaining ownership of the brand.

5.4.1.6 **Resilience**

A principle area of risk in the value chain is the ability to source adequate volumes of raw material. At the time of the interviews, the chain was continuing to operate on current stocks as there was no new supply into the chain from producers for some time. To mitigate this, there were some contractors travelling the country in an attempt to secure additional raw material. An additional "…plan C" for securing supply was in place, however an interview participant from the focal company stated that this was a last resort as it was very labour intensive and involved additional authentication efforts by the focal company, thus increasing transaction costs significantly..

Human resource management within the chain is an area of concern. First, there is a clear labour shortage in the management of the value chain. This is currently undertaken by one manager employed by the focal company and they expressed unease with the ability to work on relationship building and maintenance. The time constraints of one actor managing several different activities in the chain meant that they are only able to meet other chain actors about once a year. It was noted that this was a shortage of funded positions, rather than skill as the board were unwilling to invest into the value chain. A second issue is the match between customer orders and processors. When customer orders exceed processor capacity, focal company management has the ability to communicate with additional processors to cover the shortage. While this allows for some agility in the chain, this is not always possible as the creative style differences among processors can limit similarity in finished products. Hence, product homogeneity is limited. Third, are the conflicts within the board governance. At times this can prove to be a significant risk to the operations of the value chain.

One of the largest threats to the chains existence is the presence of a black market for counterfeit sales using imported and non-genuine raw materials. In order to counter this, processors have forced a change in traceability systems, and authenticity systems have been implemented within the chain. The ability to source the raw material legally, record GST and accounting accurately, and receive direct orders through the ecommerce platform is a large positive for actors involved in the chain.

5.4.1.7 **Brand Ownership**

The focal company has full ownership of the brand from production through to consumption, and the cultural brand story is shared directly to consumers through the traceability component on the website. This is shared by the processors / carvers whereby "…their own words, and interpretation of their designs can be delivered direct to the consumer". Consequently, the processors in the chain have an attitude of stewardship of the product, rather than ownership, and see the focal company as the true owner of the product.

In terms of maintaining brand control at the retail stage of the chain, there is little control over how the brand is presented in-store. Display cabinets are provided to businesses, however, there is no formal agreement or requirement for their use or presentation. At this stage of the chain, the retailer is responsible for the final sale of the product. One retailer stated that they had a strong connection with the brand, and were invested in the brand story and provenance. However, as this is the final point of sale, customer perceptions are important and the retailer has returned products to the focal company in the past when they believed the quality was not sufficient.

5.4.2 **Case Summary**

Producing a non-perishable product involving customary rights has created some great advantages, and challenges for this value chain. There are issues in terms of continuous supply as a result of authenticity and licensing terms. However, the existence of the customary rights has allowed the value chain to be developed with a highly centralised governance structure. Further, the information integration via the ecommerce platform has been a way that the focal firm has been able to partially mitigate the issue of inadequate labour volumes. Table 5-7 highlights these issues through a summary of the value chain attributes discussed in this case study.

Table 5-7 Summary of Case C value chain attributes

Attribute	Summary
Market Orientation	There is a lack of market research in this chain. Instead, the product offering is aligned with consumer preferences based on sales data. The ability of the processors to engage in direct contracting with final consumers allows for product customisation.
Information Enrichment	The ecommerce platform was a tool used in the chain to coordinate activities, orders, and payments and was where most actors in the chain shared information. Other forms of communication involved emails, and telephone or face-to-face conversations.
Incentive Alignment	The licensing agreement between processors and the focal company had been recently altered and provided processors with a greater financial incentive. However, the retailers felt that there was little incentive to stay in the chain as there was no ability to set prices, and an unwillingness for the focal company to respond to suggestions and feedback.
Channel Leadership and Integrated Network Governance	Through the existence of customary right, the chain had a centralised governance structure, with the distributor acting as the channel captain and vision holder in the chain.
Value Co-creation	The main form of value co-creation was between the processor and distributor where the processors are able to submit catalogue designs, and the branding and packaging is controlled by the distributor.
Resilience	Three key areas of risk in this chain: sourcing raw material, authenticity / counterfeit production, and human resource management. To mitigate the first two risks, the distributor is working to secure additional supply and traceability systems had been put in place. In contrast, labour remains a key risk to the chain.
Brand Ownership	The highly centralised governance of this chain has resulted in the focal company maintaining brand control from production through to consumption. The brand is communicated via packaging and traceability, and reinforced via a consumer facing website, allowing the final consumer to verify brand claims.

Source: Author

5.5 Value Chain D

Value chain D is a Māori anchored seafood chain that exports the majority of its finished products. In terms of the breadth of interviews across a value chain, this particular case was the narrowest. Participants were only able to be secured from the focal company whom operate at the processor stage of the chain and interviews took place in October 2018. However, as Table 5-8 shows, at the time of the research all interviewees were in management roles and had considerable knowledge of the workings of the chain. The Operations Manager was able to provide information regarding the producer stage of the value chain as there is some vertical integration present. Additionally, the Marketing Services Team Leader and the Sales Manager were able to provide insight into the distribution and retail stages of the chain.

Table 5-8 Value chain D interview participants

Value Chain	Producer	Processor	Distributor	Retailer
C (n = 5)	(no access)	Operations Manager General Manager of foods Marketing Services Team Leader Sales Manager Trade and Marketing Manager	(no access)	(no access)

An overview of the value chain may be found in Figure 5-4 with the producers in the chain operating seafood farms within a geographically close area. There are three different types of farms that supply the value chain. The first are contract farms whom are arms-length transactionally oriented as there are competing chains vying for supply, particularly those operating in the nutraceutical sector. The second are farmers who lease water space / rights from local Iwi and then sell their product into the chain. Third, is a vertically integrated structure whereby the parent firm of the focal company owns the rights to the water space and then leases this to the focal company of the value chain.

Company D, the focal company and sole processor is located at the processor stage of the chain and coordinates seafood purchasing and customer sales. Due to the nature of seafood production, the product is harvested when ready, not necessarily when it is ordered. Consequently, the focal company is able to provide partial make-to-order sales, with the majority of harvest being make-to-stock. Post-harvest, the product is sent to the processor for cleaning, grading, processing, and packaging. This practice is very labour intensive and as a result, company D have worked to develop strong ties with the local community. As an indigenous based chain, there is an aim to employ Iwi, however this is not always possible and surprisingly, there are 23 different ethnicities working in the factory making it a very multicultural workplace.

After processing the finished product is sold to the distributor. Often there can be a long lead time between order placement and fulfilment due to the variability of seafood production. There is no formal grading process, with quality control being undertaken by experienced employees and order fulfilment taking place only when the required size and quality is achieved per order. The chain has two main distributors, accounting for around 70% of sales, and these actors utilise their own distribution channels. While this provides a way to market, there are also major issues around brand visibility. For example, in the case of one distributor, the seafood is sold into a large restaurant chain. However, the seafood loses its packaging and is labelled as a New Zealand product and is presented on the menu as a generic item. In this sense it becomes a commodity. The second distributor supplies to a large supermarket chain in the Canadian market whereby the focal company has some control over brand display within the seafood section.

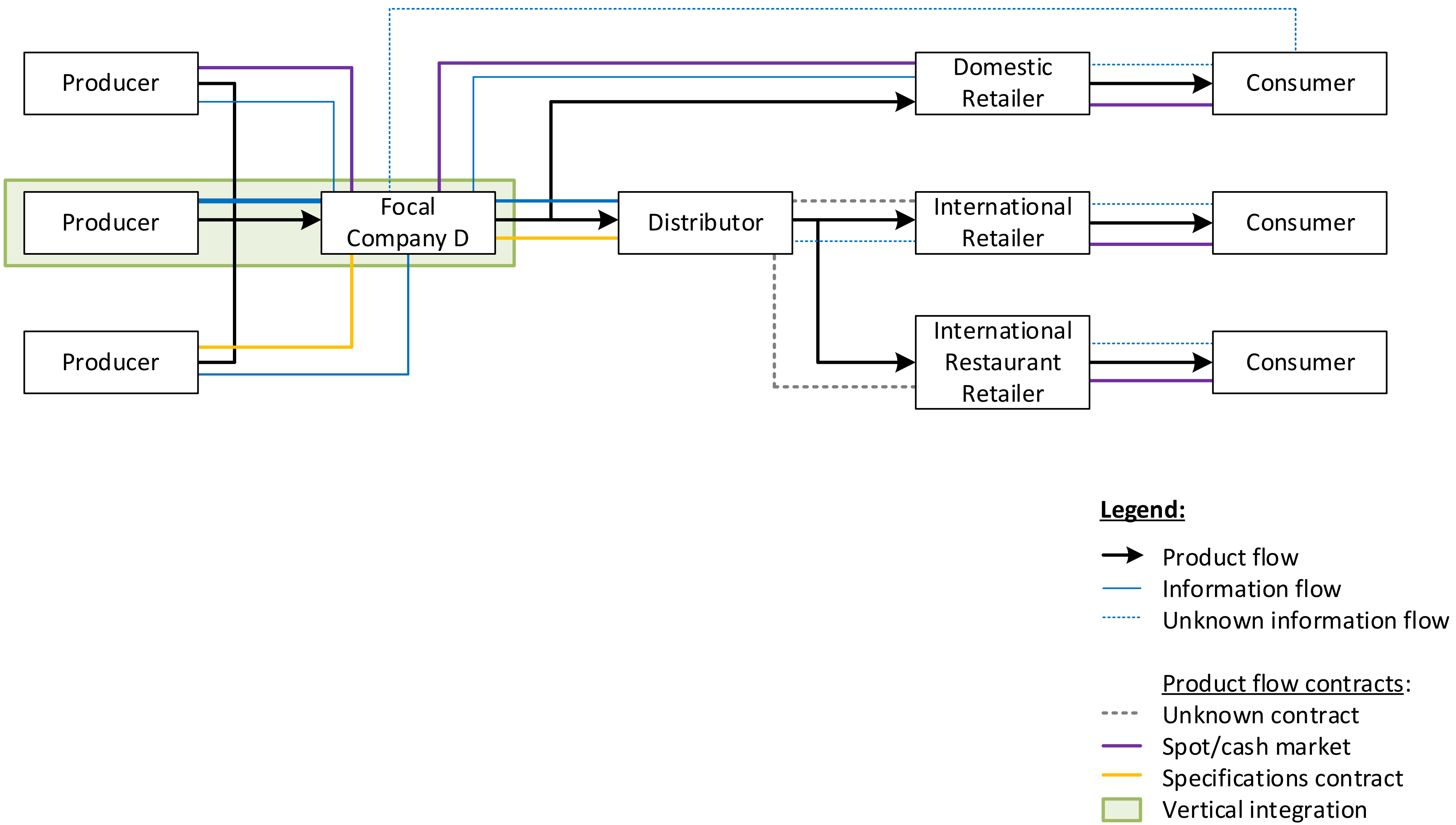

Figure 5-4 Value chain of case D
Source: Author

5.5.1 Attributes

5.5.1.1 Market Orientation

Of all of the participant value chains, this chain most resembles a traditional supply chain. However, there have been significant advancements in this area, with a marketing team formed in 2017 within focal company D. This team is responsible for creating a five year plan to move the chain from 'volume to value'. One of the greatest challenges is consumer education as the product is not seen as high value, particularly in the United States and European markets. However, from a market point of view, this particular seafood species is only produced in New Zealand, and the marketing team are attempting to attribute a premium to this.

In order to capture data from customers, company D operate a customer relationship management module that is linked to their accounting information system. This has little to do with the end consumer but provides value through delivery reliability, condition monitoring of product in the supply chain, and efficient inter-firm supply chain business processes. The focal company has no interaction with the final consumer, instead only having contact with overseas distributors when an order is placed. The main product offering is sold based on a full container load order and is sold to distributors and wholesalers overseas. Currently, the system is not set up for niche or low volume buyers, such as local restaurants, and nearly all product is exported overseas. Very small quantities do go to the local market, with one respondent stating that the volume sold was "inconsequential".

Generally production is aimed at a make-to-order system, but when batch quality changes mid-run, output is shifted to other orders that more closely meet the specifications of the current output. This decision is made by experienced team leaders in the processing line, who can detect shifts in batch quality and fore-warn downstream processing. This assessment is based on visual inspections and experienced judgement. The marketing manager of company D is responsible for communicating volume and order specifications upstream to producers, and harvesting boats then search for and harvest seafood based on this information, resulting in partial make-to-order batches. Further, the production team communicates with the marketing manager the volume and specifications of batches moving through the processing line, so that buyers may be found. Hence, some product is also made-to-stock and this may be stored safely for up to four weeks. The key capacity issue is cold storage, and company D contracts this to local cold store third-party logistics (3PL) providers.

5.5.1.2 **Information Enrichment**

Company D is driving the changes in the value chain and are wanting to implement data driven decisions, however acknowledge that this is early days. Currently, there is no information flowing from the end consumer back up the chain, and very little between organisations as well. One interview participant suggested that more resources should be directed toward the end consumer, and education regarding the health and product benefits in the market should be promoted. Instead, feedback is received from the retailer. This comes in the form of preferences for size and grading, and complaints, and while there have been efforts to implement a customer relationship management system with key accounts, "…many customers don't want to know about this" as they are simply transactional buyers. This is a key challenge for this chain in upgrading the value chain.

In terms of internal communication between focal company employees, information flow has an important role. Face-to-face meeting take place weekly between management. Email communication is also frequently used, especially between three key employees who "…all communicate really well with each other, always CC'ing [carbon copying] in everyone on all coordinating emails". One interview participant stated that the internal communication channels and also communication with key chain members was born out of previous failings. Two interview respondents stated that while face-to-face and email communication was important, there is a move towards implementing a formal sales and operational planning business system.

Demand planning in the chain is largely based on forecasting, using historical production and sales data. The focal company works closely with a local 3PL, sending pre-planned production schedules to the 3PL, who then books to ensure container space on vessels for export. Further, one of the focal company employees has direct access to the local enterprise resource planning system of the 3PL, and is able to directly book domestic freight. It was interesting that there is a relatively close relationship with this logistics provider, while upstream there is very little communication with product suppliers outside of the focal company.

5.5.1.3 **Incentive Alignment**

Throughout this value chain there is little integrated incentive alignment due to the number of transactional arrangements between parties. However, at the upstream end of the chain, namely the producer, processor, and 3PL, there is an informal incentive. This relates to the values of the focal company, which are based on traditional indigenous Māori values. There is a strong internal culture related to these and this claim is strengthened by evidence both within the company literature cultural artefacts in the offices. The focal company is a large percentage of the 3PL's business, and both organisations share similar values around whanau (family), leading one respondent to state that they were a "…good cultural fit and [we] work well together". However, from a formal incentive point of view, there are no contract clauses to motivate or align incentives between the focal company and 3PL. On the other hand, producers enjoy greater returns when seafood is harvested on a make-to-order basis, providing a formal economic incentive.

It appears that aligning with consumers and customers has been difficult. The focal company is at least three steps removed from the final consumer and whilst aware of the need and the desire to more fully align, they lack the resources and strategic imperative to do so. In order to better achieve this goal, one respondent stated that "…business development needs additional resources to produce business cases for extending and developing new markets, but they must stack up economically". One example given was the search for markets that would value the smaller sized, or what is seen as the less preferable size of product. In terms of the customer (retailer), there has been some issues around aligning incentives both informally and formally. The first refers to finding overseas accounts who hold similar values to Māori, and there has been some success in aligning with some retailers over the long-term. However, this is hindered by both the hesitation and inability to commit to fixed term contracts, due to inherent growth and production variability. The issue with this is the potential for a negative future impact on business relationships due to supply security.

5.5.1.4 **Channel Leadership and Intergrated Network Governance**

Within this value chain, the focal company is the channel leader up to, but not including the retail stage. The organisation is centred on a production led chain model, relying on tight coordination between sales and operations. Further, there is a close relationship between the processor and 3PL provider in the chain. The 3PL has allocated a dedicated account manager to work with the focal company, suggesting that the focal organisation is an important customer. One respondent stated that there is some risk and reward sharing with the 3PL, and both carry additional costs collaboratively when necessary.

The processor can be said to the channel integrator and is in a privileged position due to the nature of the products. This is a niche product with Iwi (indigenous tribal) ties and exclusive production rights, and the focal company operates a near vertically integrated chain from production to distribution channel intermediaries. However, it has no control over in-market policies, pricing, and branding. Hence, the vertical integration exceptions throughout the chain are:

- 33% of production supply is from contractors, the remaining 66% is from vertically integrated sources.
- Sales are to institutional buyers, wholesalers, and distributors. There is no direct connection to end user segments.

The coordination between operations and sales strongly relies on key individuals as the focal company does not connect to the retail end and has no final consumer interface. Hence, it does not benefit from branding or understanding consumer preferences, and the reliance on key individuals is of concern as employee changes may result in the need to rebuild and carefully manage existing relationships. Therefore, it could therefore be argued that the main source of power lies outside of this organisation, as the economic benefit of production is captured further downstream in the chain. Indeed, one of the focal company respondents suggested that 60-70% of the chain exports are for one account, showing that some customers are indeed powerful chain actors and thus, appropriate the majority of the created value.

5.5.1.5 **Value Co-creation**

Value is co-created at various stages of the chain. At the producer stage, one third of production is from contract farms, one third from farmers leasing water space from a local Iwi, and one third from focal company farms, leased from the parent company's water space. The focal company sells juvenile seafood to the first two groups to grow, and then focal company equipment is used during the seafood harvest. The relationships with the contract and other source farmers is important but was described by one respondent as "challenging" at times. Farmers in the chain are motivated by the cost and return ratio, rather than being invested in the brand story. Consequently, historical growth of the focal company rested on opportune acquisitions, internal investments, and organic growth.

At the processor stage, there has been some horizontal co-creation through collaborating with other processors in the same industry. The key example given was the collaboration of New Zealand based processing companies at overseas tradeshows to showcase different product offerings across the sector. This was an important sales opportunity for New Zealand processors, and for the focal company it meant being able to highlight Māori heritage values as a unique selling point. One way to do this is the promotion of bilingual te reo Māori and English, not just through marketing but embodied by the organisation. The second opportunity that the tradeshows offer is the ability to provide customers with a clear line-of-sight from farming to consumers (visibility). In this sense, aiming to develop truth and trust in the brand.

One new product line was provided as an example of value co-creation with multiple stages of the chain: the trialling of live product exports. In this case, the total time from harvest to plate is 48 hours and consequently, cold storage and transport security are crucial. In this scenario, the close relationship with the 3PL is important; the processor delivers a product to market meeting quality specifications, and the 3PL fills space on cargo planes whilst developing a relationship that could lead to an expanding and lucrative market. The processor stated that just the second delivery was being made at the time of the interviews. In a later follow-up with one of the respondents, they confirmed that the order was successful and a subsequent order had been placed. Value is also co-created with restaurants (retail stage) as a way to help differentiate themselves in-market by supplying fresh, live seafood to consumers. This is a developing story for this chain, and shows strong intent to create more value.

5.5.1.6 **Resilience**

There are two main categories in which interview respondents identified as key risks: business risks, and environmental and production risks. In terms of business risks, one of the main issues is around the sale of seafood to a small number of major distributors. One distributor in particular, accounts for 60 – 70% of sales and the focal company is acutely aware of this risk. There are current efforts to widen the product offering and supply direct to retailers. Another way in which to widen the scope of the chain is to enter into the nutraceuticals industry. This is seen as a current threat as other firms compete for supply of the product with the focal company but are able to pay a much higher per kilogram price. In response, there are efforts to explore new product development through working with laboratories and other manufacturers. One example given was a marine lipid oil, trademarked specifically from the product offering’s meat. This is currently sold as a non-prescription homeopathic / alternative remedy and is a value-added product. The issue with entering into this nutraceutical industry is the large investment needed in terms of specialist scientific knowledge, laboratories and test equipment, and the development of new market channels. However, this is one way in which to broaden their customer base.

Other business issues that the processor face are related to downstream activities. The first of these are issues with their incumbent 3PL in regards to labelling and packaging problems and material handling damage. However one interview participant suggested that these were minor and open communication between the two organisations allows for relatively quick resolutions. A second business issue is related to the Incoterms use insisted by the buyer. The use of the cost, insurance, and freight term into the port of destination for the finished goods means that the processor loses control over the product and brand image for the last mile delivery. As such, is unable to determine who would be responsible for losses and damages, nor control the brand and price point. Consequently, the cost of this is shouldered by the focal company.

In terms of production issues, one area of uncertainty is the securing of juvenile species to transfer to farms to grow, and later harvest. The juvenile product occurs naturally in oceans, is washed ashore and is harvested off only one or two beached in New Zealand. Hence, the process of securing supply is highly vulnerable to the weather and other ocean conditions such as storm and El Nino occurrences. Once the product is secured and moved to farms to continue growing, other production issues occur. Production on farm is affected by nitrate runoff, algal bloom and other water quality issues such as suspended sediment after storms. When bio-toxin levels exceed certain international standards, harvesting must cease during bloom events until testing shows bio-toxin levels are under accepted thresholds. Similarly, rainfall events affect the bacteriological quality by carrying microbes from the land (mainly animal faeces) into the growing waters. Consequently, water quality is closely monitored by both the focal company and Regional Council. These events affect each of the farms in the region differently, given their location. The geospatial spread of farms helps, but these are still constrained within the main growing region of the Marlborough Sounds.

Finally, processing production is at capacity and any further market development would require significant new investment. Any new and / or different product form will require investment in a new production line and facilities. The current product offering is stuck in the commodity cycle, producing a finite natural resource, subject to natural cycles and a Quota Management System. Production levels and thus price, are significantly constrained, and so this value chain operates within a capacity restrained model. The focal company response to this has been the investigation of different product forms in order to break out of the commodity cycle, and to spread the risk where possible.

5.5.1.7 **Brand Ownership**

It was stated previously that the processor loses branding control at the distributor stage of the value chain. However, prior to this, the products do have a brand story and the processor has begun actively promoting this through the building up of a multi-channel communication approach. For example, the focal company has been collaborating with New Zealand Trade and Enterprise (NZTE) working to sell the 'NZ story' through video, photos, images, multimedia and social media, and also actively sends out brand story 'packages' (print media, video, electronic social media etc).

Tradeshows, events, and promotions to build brand awareness and contact development (build the network) are also useful platforms. In this instance, the brand and image need to be carefully controlled, but this is time consuming and a large effort is required to build relationships. One respondent stated that the emphasis should not be on 'controlling' the buyers, but to help them distribute the focal company's products to their target markets. On occasion, this has led to requests to alter the marketing message to accommodate local tastes.

The brand story promoted in market is reinforced by two key factors. The first of these is packaging. Unique selling points such as 'natural' and 'environmentally friendly' are intentionally placed on packaging labels. A second key factor is in relation to promoting an indigenous identity. The focal company's 'values document' indicates that all customers should be treated as Whānau / family and as much effort should go into developing a relationship as there is in making sales. The organisation claims to take a long-term collaborative view to channel relationships, but admit there is more work to do. Further, effort goes into entwining both organisation and Māori values and customs into the work place, and hence reinforcing the brand story internally. This is evidenced by things such as a karakia (Māori prayer) ceremony at the start of each season, te reo Māori courses offered to staff, and new staff induction booklets. However, one respondent admitted that many workers, especially the process operators are simply there to earn a living.

5.5.2 Case Summary

This chain offers some insights into the benefits of value chain upgrading. One of the key issues in the chain affecting value appropriation of upstream members is the loss of brand control. The processor, who leads the chain in terms of vision, is actively working to achieve greater brand recognition. This is important as the chain is anchored in Māori values and creates a unique selling point. The case has provided some interesting insights into value chains and a summary of the attributes explored may be seen in Table 5-9.

Table 5-9 Summary of case D value chain attributes

Attribute	Summary
Market Orientation	Company D's establishment of a marketing team in 2017 aims to improve the value capture of upstream chain stages. At the time of the interviews there was a loss of brand control at the retail stage and low brand awareness from consumers. There was some knowledge of final consumer, but this was very broad as the focus to date has been on immediate customers.
Information Enrichment	Currently there is very little information received from end consumers, and also little information sharing between firms in the chain. The exception of this is communication between the processor and the 3PL whereby documents are shared bi-directionally. Further, within the processing firm, there is good internal information sharing with weekly face-to-face meetings between management and emails seen as important.
Incentive Alignment	The reliance on transactional arrangements between chain stages has resulted in some difficulty in implementing aligned chain wide incentives. In this sense, informal incentives, particularly upstream are important. The greatest of these is the alignment of Māori values. These create a cultural incentive that focuses on working together, rather than opportunistically.
Channel Leadership and Integrated Network Governance	The focal company is the channel captain, operating a production led chain model, relying on careful coordination between sales and operations. However, the economic power in the chain lies with the distributors and retailers. This loss of control has had significant implications in the loss of the brand narrative at the final consumer.
Value Co-creation	Co-creation takes place at many of the stages. The unique co-creation aspect of this chain was the horizontal co-creation that takes place with other processors in the industry. This is largely in the form of overseas tradeshows, providing the opportunity to combine resources to be able to highlight the Māori values of this chain to the world as a unique selling point.
Resilience	There are many environmental and business risks in this chain. To counter these, the focal company is exploring opportunities in other sectors such as nutraceuticals, and attempting to partner with additional distributors to reduce risk and increase the firm's customer base.
Brand Ownership	The packaging and company values document of Company D work to reinforce the brand message. The issue is in the current loss of control. In an effort to mitigate this issue, the focal company is working to build a multi-channel communication approach to promote their product.

Source: Author

5.6 Value Chain E

Value chain E is a wine chain that exports to a number of international markets. This case study has concentrated on exports to the United States market as it is the largest market for this value chain by volume by a significant margin. It is acknowledged that the interviewees of this case has resulted in narrow chain coverage. However, all interviewee participants had extensive knowledge of their own roles and the wider chain with employment terms ranging from 18 months to 10 years (see Table 5-10 for a description of participants). Seven of the eight interviewees were in management positions at the time the case study was carried out and seven out of eight interviews were conducted in-person over the 25th and 26th October, 2018. The final interview was carried out via a telephone call on the 21st November, 2018.

The focal company of value chain E is a subsidiary company of an Incorporation owned by around 3,000 shareholders of Māori descent. This company operates a number of value chains across the seafood, horticultural, and beverage markets, and employs over 300 staff. This case study concentrates on the wine chain, where around 75 percent of the product offering is exported to 25 market destinations. In particular, this case focuses on the product channel of wine into the United States and an overview of the chain may be seen in Figure 5-5, beginning with the producer, and ending with the final consumer.

Table 5-10 Value chain E interview participants

	Value Chain Stage			
Value Chain	**Producer**	**Processor**	**Distributor**	**Retailer**
A (n = 8)	Vineyard Manager	Operations Manager Chief Winemaker Marketing Services Team Leader Events Manager Trade and Marketing Assistant GM Sales and Marketing Export Manager	(no access)	(no access)

Source: Author

The producer stage of the value chain is largely vertically integrated with the processing stage as the focal company owns a number of vineyards. However, over recent years the focal company has worked to expand the capacity of the winery. Consequently, the producer stage of the chain also comprises of some contract and some spot market farmers. There are strict contract quality requirements for these farmers to ensure that all grapes supplied into the chain meet product specifications. The relationships between contract farmers and the focal company are focussed on the long-term and farmers are paid a premium to help incentivise a continued relationship (a specification contract). As a Māori organisation, cultural values and practices are woven into the operations of the value chain and a Karakia is said before the harvest each season.

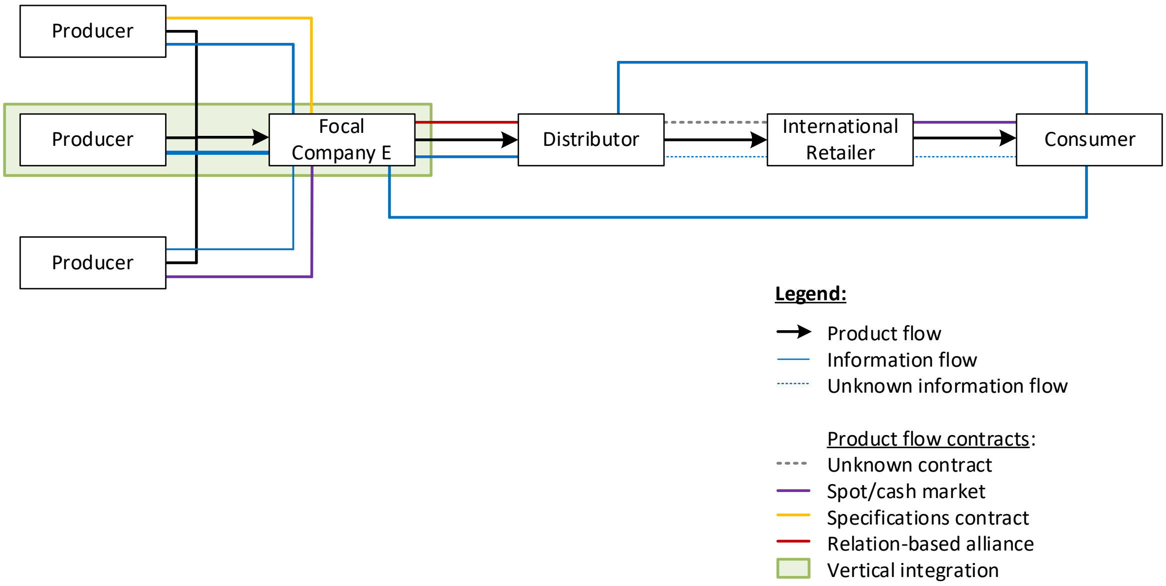

Figure 5-5 Value chain of case E
Source: Author

The key actor at the processing stage of the chain is the winery. While this stage of the chain is important in terms of product transformation, there is also a commercial office whose role is to develop packaging and labelling, secure sales, and organise logistics. Hence, the focal company has complete control of the brand up until this stage of the value chain. Once the wine is on-sold to the distributor, the focal company loses physical control of the product. In an effort to ensure that the brand narrative is not 'diluted', the focal company has worked to develop a close and collaborative relationship with the distributor. The concentration of this development has been through social interactions between the employees of the two companies. Previously, the focal company invited the employees of the distributor to New Zealand to demonstrate the cultural heritage and values of the company, and to share the brand story.

The distributor sells the wine on to retailer, the main one being a large supermarket chain in the United States, who holds significant power in the chain due to their commercial influence. This creates some issues for the focal company as while it is a "…good market for us", US legislation prevents the focal company from engaging with consumers directly, and the retailer is unwilling to act on behalf of the focal company. Engaging with the final consumer requires an intermediary and as a consequence, marketing in this destination has been challenging. The main form of communication is connecting with customers through social media and through the joint employment with the distributor of brand ambassadors' whom are located in-market. These brand ambassadors also aid in the gathering of market intelligence for the focal firm in this value chain.

5.6.1 Attributes

5.6.1.1 Market Orientation

The vineyard manager stated that their stage of the value chain is disconnected from the final consumer. The vineyard does have a sales team and runs a marketing promotion, but the "…swanky pictures are less about vineyard, and more about the winery". For nine months of the year the manager works to oversee the vineyard, with one of the biggest issues being to manage frost. To assist with this, the manager has a frost danger alarm application on their cell phone and can activate frost fans on the vineyard to mitigate the risk posed.

Four to six months of the year see wine making at the winery during vintage. The chief winemaker stated that the business was initially producer led and that they were making wine the market did not want. In order to change this an Iwi collective was established. Further, in 2008 the industry faced large challenges and struggled to sell wine in export markets. In response, the chain "…culled a whole lot of wine [varieties] and peeled back to wine we knew we could sell". As a result, the chain became market led rather than supply led, now intuitively making similar wine to what has sold in the market previously. In order to respond to consumer preferences, the business runs tasting trials, operates at wine shows and trade shows, and sells in magazines. However, this is a difficult task as there is a four to five year lead time from initial planting of new vines to first harvest and then to market. The winemaker stated that they were "…taking a punt… but tweaks to the wine are minor".

The focal company exports to 25 countries. Each market has its own history around what wines are consumed, what wines are increasing in popularity, and packaging preferences. In this case, the focal company relies on the distributors in key markets to provide feedback on the labelling, especially when involving other languages. The winery operations manager is in contact with these partners and there are numerous discussions around taste, price, and label regulations. This manager also works closely with the export team when decisions affect labelling, price structures and price points. The export manager stating that the focal company are "…trying to get long term plan with customers around brand, variety, price, and AMP [Average Manufacturer Price]… [we have] good solid connections and know that they'll take the products".

In terms of export destinations, the US market receives 75-80% of the chains volume. Due to legal restrictions the focal company is unable to sell to consumers directly and must have a US based distributor and outlet. The focal company engages the distributor to so this and consequently, the relationship between the focal company and the distributor is one of the key relationships in the chain. One respondent stated that they believe there should be an emotional connection that leads to a relationship, stating that it was about "…being part of something bigger than a sale". Māori values are at the core of the focal company with whakawhanaungatanga[5] (establishing links and connections) and manaakitanga[6] (hospitality) were being highly regarded. When the connection developed into a relationship the distributor was "…welcomed to the whānau" (family). The focal company work to meet the needs of the market through information obtained from the distributor. This is gathered largely through in-store tastings, and a monthly sales report, with sales volumes and prices being key indicators.

5.6.1.2 **Information Enrichment**

The information shared throughout the chain is done so via face-to-face meetings, emails and telephone calls, and sharing of market information with distributors. Communication takes place at all stages of the chain, however there are two noticeable information clusters within focal company. First, is the information sharing between the vineyards and winemakers, or, those whom produce the wine. The volume of wine produced is dependent upon the land available, the growing season, and viticultural practices such as canopy management. This differs slightly from season to season, and is dependent on the nutrients available in the soil, weather, pest and biological controls, not on consumer demand.

The second information cluster consists of the export team, marketing team, and the distributor, or, those whom sell the wine. The marketing team is central to this cluster as they coordinate closely with other chain members and also make decisions around what information is to be passed onto the focal company board of directors. The export team acts as the link between sales and production. They are located at the winery and provide information to those in charge of operational activities, as well as coordinating with production and marketing around labels and packaging.

5.6.1.3 **Incentive Alignment**

There are two key ways to align incentives within this value chain. The first is through contracts and monetary incentives, and these are more important at the upstream end of the chain. For example, wine growers are paid a premium (15% above the district average) to achieve quality. The Vineyard Manager believes that this was a key incentive. A respondent from the focal company considered inter-organisational contracts to be important and stated that these are based on annual volume

[5] Process of establishing relationships, relating well to others (Moorefield, n.d.-c)
[6] Hospitality, kindness, generosity, support – the process of showing respect, generosity and care for others (Moorefield, n.d.-b)

contracts: “agreed prices and minimum volumes”. Contracts are in place for all major distributors, however, contracts with importers and clearers are considered “…purely transactional”, and as such, there is little investment in the relationship itself.

For all links of the chain, aside from financial incentives, the importance of relationships and values were particularly important. A respondent from the focal company stated that one of the key incentives is the “…whole ethos” of the focal company. The focus is on long-term relationships and these are values driven. Personal connections were viewed as a way to align incentives, with the majority of respondents stating that the quality and preservation of relationships was more important than financial incentives or contract clauses. The Vineyard Manager explained that outside of full-time staff contracts, there are three types of contractor agreements that may be paid either per hour, or per vine. The majority of the workforce is supplied by contractors and so there is emphasis on building relationships and “…to have the crew enjoy the winery”. There is an effort to know contractors on a personal basis and reinvest back into the community, such as arrangements with local institutions for training of workers to upskill. One respondent stating that there is an interdependence between the vineyard workers and the winery (producer and processor); the vineyard workers need to be comfortable, and the winery needs to make a profit.

5.6.1.4 **Channel Leadership and Integrated Network Governance**

Within value chain E, the focal company shows leadership through the development of its brands and its relationships. This firm drives the vision of the chain and ensures that partnerships are created with partners whom align to their own business values. This is also reciprocated in the partnering choice of other actors in the chain. Partners of company E consider the brand and what the organisation represents, which assists in sharing the stories with final consumers. The values held close to the focal company are centred on the te ao Māori principles of:

- Kaitiakitanga – guardianship and stewardship of natural resources
- Hihiko – inspired and energetic improvement and innovation
- Whanaungatana – kinship and relationship with value chain actors
- Rangatiratanga – leading through excellence
- Manaakitanga – supporting other members so that all may benefit
- Pono – integrity at the heart of all decisions

These cultural principles provide a key differentiation for the value chain and are shared in the telling of the brand story. Company E is responsible for ensuring that these principles are communicated not only in the brand story, but also throughout the value chain relationships. Further, the focal company of this case also acts as the lead firm, coordinating the activities of much of the chain. At the producer stage of the chain, a number of vineyards operate via specification contracts or, are owned or leased by Company E. The supply contractors maintain a close relationship with the focal company and the growers are paid a premium for their product. Yet, once the wine is packaged and sent to the distributor the focal company loses control of the product. However, respondents also stated that opportunistic behaviour is not often seen, despite not discounting wine supplied into any of the focal company's export markets.

Due to the competitive nature of the wine industry there are various levels of control at each stage of the value chain. At the upstream end of the chain, growers hold some control, with the chief winemaker stating "…at the moment power is with the growers. They can walk away and find another winemaker". The winery must negotiate with growers and it is here that other incentives other than financial are important, especially in being able to adopt a long-term view. Further downstream at the distribution stage, the focal company faces significant challenges in competing with other products for limited shelf space and placement. Indeed, it was at the retail stage that interviewees identified a loss of control and thus, power. Multiple respondents stated that the nature of the retailer meant there was limited bargaining power, and being steps removed from the end consumer exacerbated this issue.

5.6.1.5 **Value Co-creation**

Responses from the interviewees suggested that there was limited value co-creation taking place. One respondent stated that "…getting value to consumers in the end market is very difficult". The export manager explaining that the focal company "…need to get importer, distributor, and retailer into the story so they can tell it to the consumer… important as these wines are at a high price point". In addition, another interviewee said that innovation was limited as "…we have staple varieties". However, it was evident that some co-creation is taking place within the chain. For example, at the winery a tasting note for every vintage wine is able to be sent to customers and this was co-developed by the sales team, export team, and Chief Winemaker.

There is co-creation between Company E and the distributor in the form of human capital. One individual actor in the chain is co-employed by the focal company and the distributor. The benefit of this being a close relationship between the two businesses, but it also allows the focal company to have some control of the brand narrative further downstream. The employee is able to work as a representative of the distributor and communicate with retailers the te ao Māori stories and messages of the focal company, with one interviewee stating that it is “a way of keeping values alive for our customers”. Additionally, in the United States market, brand ambassadors are employed by the distributor and partly funded by the focal company. The benefit of this is direct access to the final consumer, which provides the focal an avenue for market information and also developing greater brand awareness.

Finally, there is some investigating of new innovations happening within the focal company in terms of the new consumer trend of drinking canned wine. Company E has been buying data from third parties and investigating the implications of entering this market. One respondent stated that it could potentially be a major change to operations, requiring a large investment. Consequently, there is a need to cooperate with partners, both existing and new, to ensure volume commitments could be met. Currently, there discussions between the focal company and distributor in terms of how this might work within retail spaces and also between the focal company and the third party logistics provider on the implications for freight.

5.6.1.6 **Resilience**

In line with previous cases, there were two types of risks to the value chain identified: environmental and business risks. In terms of environmental risk, the two largest threats identified were border security and climate change. The vineyard manager suggested that one way to ensure that the farmland was looked after was to produce wine organically, and expressed their desire to “…remove some grass and plant natives to improve biodiversity”. However, this interview respondent also stated that changes require money, and instead, many of the land use changes have been driven by consumer preferences. The employment of staff who hold similar values around kaitiakitanga (caring for the earth) is also a way to influence land use changes as many people “…have a hard time giving up yield to protect Papatūānuku” (the land – mother earth figure who gives birth to all things).

The largest business risk identified was the dependence of the United States market for volume. This is by far the largest export market for the value chain and the focal company relies on one primary distributor. While they do not believe that there is a risk with the relationship as such, one interviewee commented that “…a number of distributors have recently been bought out by a bigger group”. In an attempt to mitigate this the focal company has been exploring the potential of emerging markets to diversify sales, and the Board of Directors from the focal company have been in close communication with the main distributor. Multiple interviewees stated that established markets such as the UK are already saturated, while markets such as Japan and South Korea have a very limited presence of NZ wine. Diversification of distribution will mitigate this overreliance on their main market and distributor.

5.6.1.7 **Brand Ownership**

As noted earlier, economic power in the value chain resides with the retailer. Despite this, Company E has a good rapport with the retailer and sells through this organisation because of the shared ethical beliefs that they hold. One of the key concerns of the focal company is ensuring that the value of the brand is not lost in the final retail to consumer stages. Due to legislative constraints, the focal company has brand ambassadors that reside in-market and communicate directly with end consumers. As a result, important credence attributes are communicated to, and understood, by the final consumer to ensure that the product continues to be recognised as a high value-added offering. These ambassadors also aid in gathering market intelligence as they directly interact with the final consumer and gather data on market and taste trends. Social media is also a key marketing tool utilised by the focal company in an effort to be less removed from the consumer.

The brand of this value chain is built upon te ao Māori principles. There are four integral parts of the Company E that the brand communicates: (1) Māori ownership; (2) connection and protection of the land; (3) the location of the land and the prestige attached, and; (4) the connection to cultural processes. Consequently, manaakitanga and kaitiakitanga are featured as important aspects underpinning the brand and these principals are actively lived out within the focal company. New employees have a three day wānanga (education of Maori principles) on a marae (Māori meeting place) that introduces them to all aspects of the focal company, with a particular focus on the history and the values. In terms of relationships with other partners in the chain, multiple respondents from the focal company provided the example of the distributor sending a large number of employees for a multi-day visit. This was an effort to practice manaakitanga and share the brand narrative with other chain partners.

5.6.2 Case Summary

This value chain exports wine to a number of export markets, with the United States being the largest market, by a significant margin. This has presented two key challenges for the focal company who resides at the processing stage. The first issue is one is a lack of scale. This has resulted in limited negotiating power with the large retailer that the focal company has chosen to partner with. However, having aligned values has resulted in a good rapport with the retailer and is a relationship that has been formed with a long term focus. Secondly, the employment of brand ambassadors located in the United States has partially mitigated the ban on directly advertising to final consumers. This provides a benefit to the focal company as the brand narrative and product credence attributes are able to be expressed to the consumer, whilst face-to-face communication acts as a form of market intelligence, and a summary of the value chain attributes explored in this case may be seen in Table 5-11.

Table 5-11 Summary of Case E value chain attributes

Attribute	Summary
Market Orientation	The producers grow grape varieties that are popular in market, and there is a marketing team within the focal company that works to understand consumer preferences. A key challenge in this area is the 4-5 year lead time from initial planting until first harvest. Further, legislative constraints prevent the focal firm from communicating directly to the final consumer in the US market. To mitigate this, the focal company has closely partnered with the distributor in the chain. This allows the focal company to gather market intelligence and improve understanding of the final consumer.
Information Enrichment	Traditional methods of communication such as telephone, email, and face-to-face meetings are the most common in this chain. There are two main information clusters and these both extend from the focal company. The first is upstream to the producers and is largely regarding operation coordination. The second is focused on the consumer and relates to sales and marketing.
Incentive Alignment	There are two key types of incentives in this value chain. The first is contracts whereby financial incentives are provided and growers are provided a premium to supply the chain. The second are non-financial incentives and these related to a shared values system and the importance of relationships.

Channel Leadership and Integrated Network Governance	The focal company in this chain acts as the channel captain and provides direction for the chain through the development of brands the types of relationships present. However, there are different levels of economic power throughout the chain. Growers hold some negotiating power given the number of wineries within the industry and the focal firm try to limit this through financial incentives and aligning values with a long-term view of relationships. However, the largest loss of power is at the retail stage, and the focal firm hold very limited bargaining power.
Value Co-creation	There is limited co-creation within the value chain. However, some key examples were highlighted by interview respondents. Firstly, the focal company and distributor co-employ someone to help the processor control the brand narrative further downstream and also helps to communicate te ao Māori principles. Secondly, co-creation is taking place between the focal company and other chain partners around innovation and the entering of new markets.
Resilience	Risks associated with land-based production were highlighted. However, to-date the majority of land change has been driven by consumer preferences as any change requires significant investment. In terms of distribution, the reliance on the US market was highlighted as a key issue, and focal company are investigating new markets as a way to diversify sales.
Brand Ownership	The retailer holds the power in the chain. However, the focal firm and distributor have worked to develop a relationship of good rapport with the retailer. Further, brand ambassadors in-market act to communicate the brand narrative to the final consumer, and social media acts as a direct link to final consumers.

Source: Author

5.7 Summary

This chapter has highlighted the uniqueness of each of the cases. The focal company in value chain A is in an interesting situation due to its legislative position as a single desk seller. This, coupled with the importance placed on innovation by the focal company has meant that the value chain has been able to command up to twice the average world market price for its product. Value chain B places an emphasis on environmental sustainability and consumer health, and company B has developed relationships with other firms who hold similar values. This has resulted in the development of close collaborative relationships along the chain, dependent upon social norms and trust. Due to nature of the product offering of value chain C there is no reliance on climate conditions and seasonal production. This, coupled with the nature of the processing stage of the chain, has resulted in a chain where processors are geographically dispersed. The operating of the virtual ecommerce platform has allowed the chain to remain integrated and tightly coordinated.

Value chain D is perhaps the case closest to that of a traditional commodity chain. The focal company has some vertical integration with the processing stage of the chain, and there is close communication between these stages regardless of supply type. However, from the processing stage the focal firm loses the ability to communicate the brand story. In one particular retail setting the seafood loses its brand altogether, with the exception of country of origin labelling. Finally, chain E is characterised by close collaborative relationships with chain partners, based upon shared values. The embeddedness of Māori values within the day-to-day operating of the company has resulted in a unique governance structure and brand narrative.

Each case study has been analysed and discussed utilising the framework of the seven major attributes of value generating value chains that have been identified from the literature. Each of these attributes have contributed in different ways and are of various importance to each of these value chains. Indeed, based on the results of the current chapter, the following chapter aims to compare and contrast the cases via a cross case analysis. This will help to draw any inferences and develop generalisations in order to provide a discussion and highlight contributions from this research in the final chapter of this research.

Chapter 6
Cross Case Comparison

6.1 Introduction

The previous chapter introduced the results of the individual case studies. This current chapter expands upon these findings to present a cross case analysis. The purpose of such, is to identify similarities, variability, and comparisons across the cases to draw insights from the data. These insights are then further explained in the proceeding discussion chapter. To achieve this current objective, the chapter is divided into two major sections. Firstly, section 6.2 revisits the value chain attributes described in the previous chapter in order to begin to draw some inferences around the data collected. Following this, section 6.3 introduces some additional value chain attributes that were revealed during the data collection and analysis phases of this study. Finally, section 6.4 examines the governance structures of the cases through two different lenses to provide an in-depth analysis. Guided by value chain thinking, the first lens is a comparison of product type and the degree of centralisation of governance. The second lens is the categorisation of the cases into different value chain archetypes reflecting various degrees of value alignment, power/dependence, collaboration, ownership and control over the different tiers (operational levels) in the supply chain. This provides a wider conceptual view of the governance of each of the cases.

6.2 Value Chain Attributes

The main focus of the interviews were around value chain attributes. Importance was given to the attributes discussed in Chapter 3, however, additional unanticipated attributes also emerged from the data and are discussed in section 6.3. The current section provides the results to questions surrounding the original propositions for this study. Each is presented individually here and then brought together in the discussion chapter of this research (Chapter 7), to highlight the interactions between the attributes when managing value chains.

6.2.1 Market Orientation

In most chains there was a broad understanding of the final consumer, which was enabled through market research. This research was conducted using surveys; communicating with chefs/processors; supermarket trials; literature reviews; and investing in knowledge intensive business services.

Further, the extent of market understanding was correlated to how large the marketing budget was. For example, Company A have a large marketing budget, with a significant portion allocated specifically to market research. Value chain C on the other hand, is more reliant on a small number of processors whose skills and cultural knowledge inform product lines, and also the sales information provided by the e-platform. This is used to inform central management on popular product designs, and then disseminated to all processors in the chain.

A key task in a value chain is to understand which products resonate with final consumers, and then to develop or enhance product attributes to align with consumer preferences. In some cases land-use/practice change was a value driver. For example, the value chain of Company B (meat chain) was developed in response to council regulations around nitrogen run-off. This legislation effectively put restrictions on stocking rates that in a traditional commodity chain would result in un-profitable land use due to a lack of scale. Through an understanding of the final consumer, Company B was able to develop and market a product that aligns with the values of their chosen consumer segment, while also achieving a price premium.

Following this, market segmentation was seen as important in safeguarding demand for a product offering. However, because these chains are based upon agricultural production, there is an element of production constraint. A key issue for these chains is ensuring that there is a balance between product supply and market demand. This was especially true for Value Chain D where some supply was make-to-order, and some was make-to-stock. The risk of this is that a misalignment between supply and demand has the potential to result in unwanted output being sold as a commodity.

A close connection to the market was also important in trialling new product lines/packaging. One difficulty with land based production is the long lead time associated with new product development, as product form is difficult to customise. For example, Company A (horticultural producer) has an average product development lead time of around seven years. Therefore, it is crucial for this chain to understand long-term consumer trends and preferences before investing significant capital into product development. Additionally, the packaging of a product can become a vehicle for transmitting and sharing the brand story and product attributes with consumers even after ownership passes, while also creating in-market brand recognition.

Finally, social media has become a part of many consumers' lives and the potential in this area is being explored by a number of chains as a way of directly communicating with the end consumer. The focal company of value chain E believe that social media has potential, as it is a growing platform that provides a form of direct two-way communication between the focal company and the consumer. However, it is still unclear how much information is generated from the end-user using this particular tool. A generic summary of the market orientation attribute may be seen in Figure 6-1.

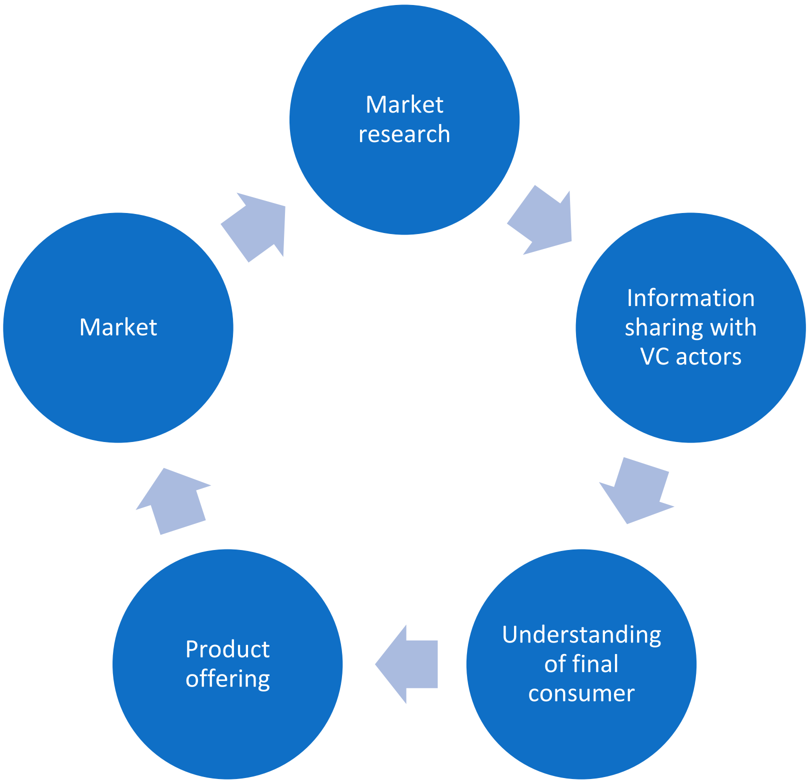

Figure 6-1 The generic iterative process of market orientation
Source: Author

6.2.2 **Information Enriched Value Chain**

All of the value chain case study participants believed that information sharing is at the core of a collaborative relationship. Information sharing fostered trust and ongoing communication between actors and vice versa. The most important form of communication in all the chains were face-to-face relationships or, kanohi ki te kanohi[7]. This was seen as being crucial for bringing together different stages of the value chain. For example, value chain B relied on face-to-face relationships as the main form of communication and in value chains D and E, kanohi ki te kanohi was seen as a way of embodying the value of manaakitanga (hospitality, kindness, generosity, support).

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[7] Face-to-face, or in person communication

Other everyday platforms such as telephone and emails were also useful in not only direct communication, but also distributing information such as industry body reports, market information reports, and newsletters, particularly to producers and processors. A participant from the focal company of value chain A commented that information distribution re-enforced the collaborative and "friendly" culture of the chain.

Interestingly, there were no fully integrated information systems within any of the chains investigated. Value chain C was the most integrated of the cases. However, there were still information gaps such as in the communication between the retailer and distributor. In many of the value chains, the information systems in place have been upgraded only when necessary, with participants citing the capital cost and business disruptions as the major obstacle. Further, even within chains, there were differences in opinion regarding technology modernisation. For example, in terms of traceability in value chain A, the processor commented that technology use was adequate, while an industry body representative suggested that the use of traceability technology was "10 years behind" and needed a "serious overhaul".

Finally, cultural and language (bi-lingual) skills were important in communicating values through the different value chains. For example, in the value chains of Company D and E, Te reo Māori and tikanga Māori (customs and values) are key for understanding Mātauranga Māori (knowledge of the visible and invisible in the universe) values that these chains embody. Additionally, bi-lingual understanding was critical for market branding when exporting to countries with official languages other than English, and one way in achieving this was to employ people in-market, which value chain A and E have successfully implemented. Figure 6-2 summarises this attribute by exploring the role that information shares in developing relationships with value chain actors.

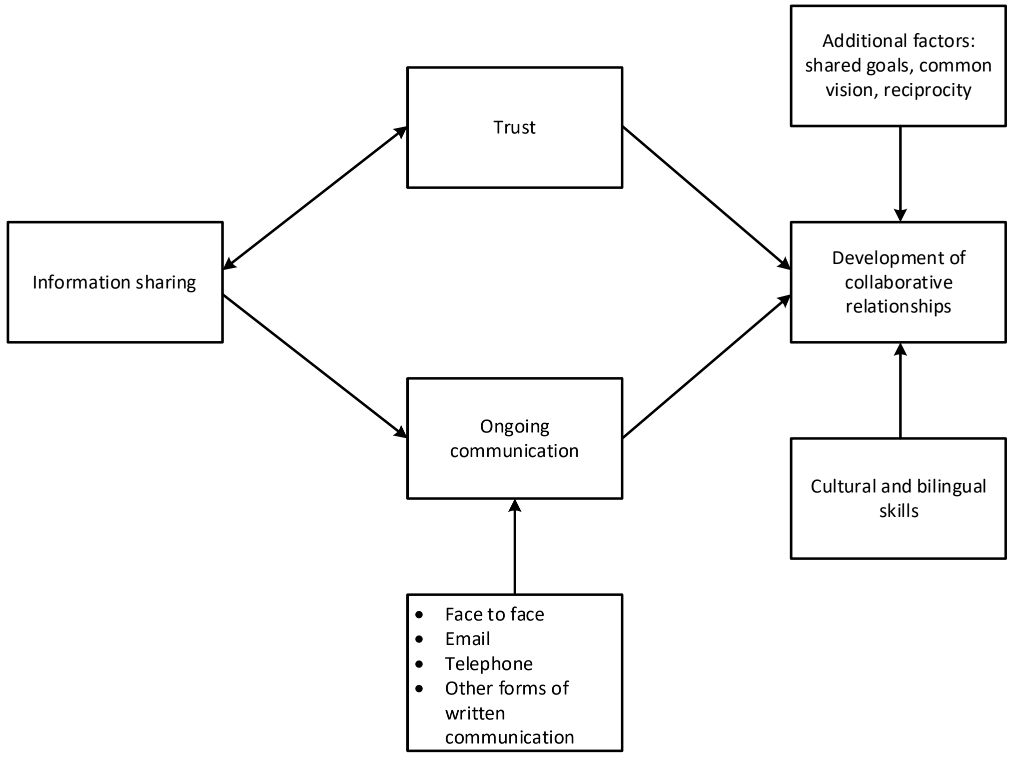

Figure 6-2The role of information enrichment in the development of collaborative relationships
Source: Author

6.2.3 Incentive Alignment

In many of the chains, relationships were seen as more important than a formal contract. That is not to say that these were not useful as they provide a way to mitigate risk, especially as the chain grows in scale. However, other relationship factors such as trust and shared values were given greater emphasis by interview participants. In terms of chain B, the chain is relatively small in scale and relationships were carefully selected based upon a set of shared values and business aims. In this case it was the supply of a healthy, high quality product that is environmentally sustainable. The trust established between chain partners led to the focal company establishing many relationships with a 'hand shake' taking the place of a formal contract.

In the case of chain A, the focal company saw personal relationships as hugely important. However, all relationships were also underpinned by formal contracts and this was done for two reasons. First, the relatively large scale of the chain meant that informal contracts were not suitable for operating and second, formal contracts clearly set out the expectations of all parties and act as a risk mitigation strategy. The outlier in terms of the importance of relationships was that of value chain D. Because the value chain operates a governance structure more closely to that of a traditional commodity chain, all relationships are enforced with formal contracts.

In some cases contracts had risk and reward sharing behavior clauses, whereby incentives were both financial and non-financial. For example chain A stated that financial incentive based contracts were in place for producers and several interview participants from the focal company stated the incentive was “do as I pay, not as I say”. This speaks of an intrinsic economic motive as it is no use demanding that a party act in a specific way if there is no economic reward for doing so. However, at the downstream end of the value chain, return clauses acted as a risk mitigation for retailers, leading to increased returns throughout the chain. The message received from all cases was that the key concern was uncovering what was important to the final consumer and other actors, and then translating this into a contract to protect those factors and help improve returns through closer relationships (reduce frictions). This attribute is summarised by Figure 6-3 which highlights the alignment of incentives via contract form.

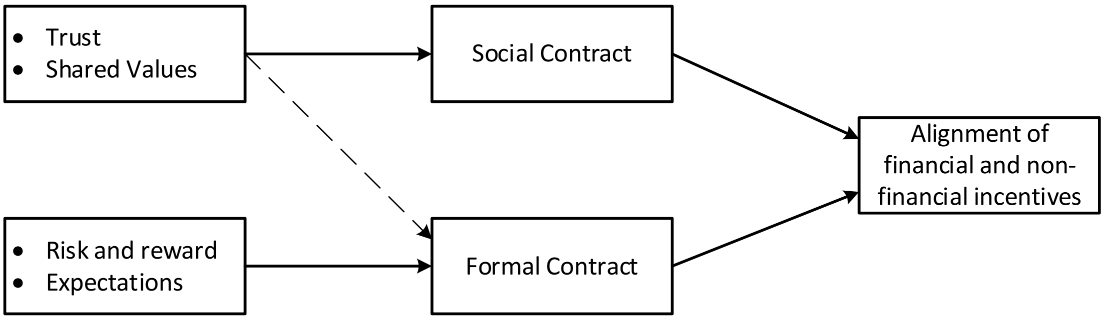

Figure 6-3 Alignment of incentives through contract form
Source: Author

6.2.4 **Channel Leadership and Integrated Network Governance**

It was noted in the previous chapter that the leader was not always the most powerful in the chain. Hence, interview responses suggest that there is a difference between the locus of *leadership* and *power* in the value chain (see Figure 6-7). The leader was the actor whom had a vision for the value chain and found partners that align with the company values. This actor was unique in that the values claimed were operationalised within day-to-day activities and in the relationships held with other chain actors. Thus, there was an alignment of values and goals amongst partners. This leadership role was seen in value chain B where the producer acted as the leader. This organisation intentionally created relationships with other companies whom placed and importance on the way that the beef was produced and believed that health and wellbeing were important.

In contrast, the power holder was the party whom held a coordination role within the chain, or carried weight in terms of influencing negotiations and behaviours of other actors. Generally this party had a greater economic influence and often acted as a gatekeeper to value chain participation. The effect of the power locus was particularly evident in the case of chain D. In this value chain the focal company acted as the leader, however the power holder of the chain was the retailer. It was noted in Section 5.5.1.4 that 60-70% of exports were sold to one account. Hence, there was a dependency by the focal company on this chain actor, and a relinquishing of power to the retailer in terms of product demands and sale negotiations.

For a value chain, power and leadership need to be aligned to reduce frictions and produce a product that not only embodies desired credence attributes, but also communicates the brand narrative to the final consumer. In most of the cases where power and leadership resided at different stages of the chain, the focal company acted in ways to try and mitigate this or, reduce the effects of a loss of power. For example, Company E holds the leadership role within its value chain, however, the economic power within the chain resides with the retailer. As stated above, brand ambassadors are employed by the focal company, residing in-market to have direct communication with consumers and to understand desired attributes and promote the brand story. This produces a number of outcomes in the form of generating market intelligence directly from the end user, avoiding a loss of brand recognition with the consumer, and power mitigation of the retailer. Hence, there is the achievement of greater value outcomes, and a summary of this is shown in Figure 6-4.

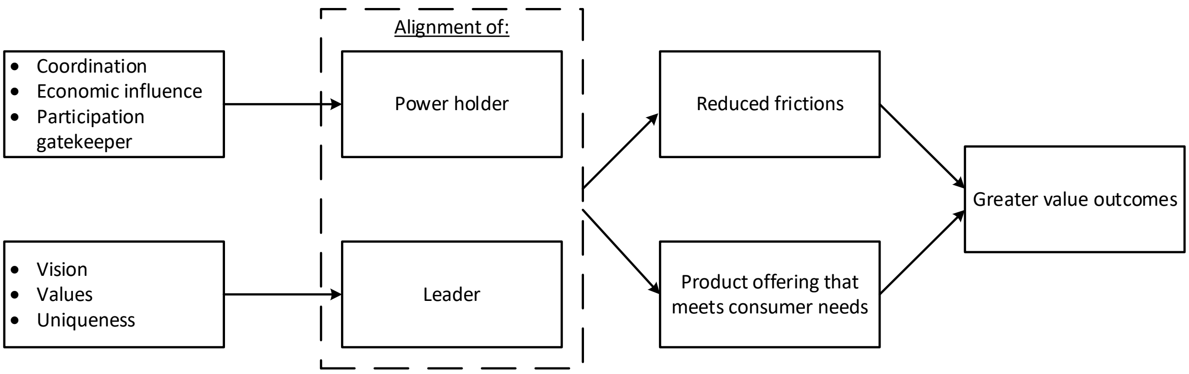

Figure 6-4 The attainment of greater value outcomes through aligning leadership and power
Source: Author

Power exercised throughout all of the value chains was generally non-coercive. Having a clear power holder within the chain meant there was little need to exercise coercive power as this actor generally operated as the gate keeper to either value chain participation or, market access. For example, in value chain A the focal firm held the leadership and power position. The contracts with upstream actors meant that quality requirements were clearly communicated. Failure to adhere to these requirements would result in product rejection and as a result, a lack of market access. Where the focal company lacked the power to gain access into certain markets, an important strategic move was the choice of connecting with partners who have power, or reach into market, to achieve greater market access.

Governance was more associated with leadership and vision, rather than ownership or power. Consequently, while the value chain may not retain power further downstream, the identity of the chain and the credence attributes of the products were driven by the lead firm. This firm played a large role in coordination and establishment of chain culture. Further, in the chains where power and leadership resided at the same stage, greater price premiums were achieved. For example, chain A was able to capture twice the market price internationally for its product. The exception to this was Company E who worked to mitigate the distribution of leadership and power through in-market activities and re-capture some of the previously lost value. Further, no value chain as a whole possessed a fully integrated governance model. Rather, while some parts of the chain were integrated (value chain C for example), the whole of the chain was held together and aligned through collaborative behaviours. Social activities such as sharing information, shared commitment, and culture acted as buffers to build and strengthen relationships, and align values.

6.2.5 Value Co-creation

Value co-creation involved insight and knowledge from partners along the value chain being incorporated into the final product and was a key tool for many of the chains in creating value. The illustration that most respondents provided for co-creation was in relation to packaging of the product and the brand identity. In value chain C for example, the processors are highly skilled in handling the product. However, due to the high number of processors in the chain, central management are responsible for providing packaging and developing the brand story to communicate with consumers.

Through interviews with the case participants, two types of value co-creation were identified. The first of these was *purposeful co-creation*, whereby dynamic capabilities and resources were intentionally developed with value chain partners. The driver of this was to improve returns through working with other chain partners. In other words, “help others to help us”. All value chains believed that it was important to identify new opportunities through seeking out new partners and/or leveraging existing relationships. For example, Company B sought out new relationships with boutique retailers that allowed win-win outcomes. The retailer was aligning itself with a premium, locally produced product, and Company B was able to shorten the length of the value chain and gain additional market access.

The second type of value co-creation was *associative co-creation*. This was derived from daily operational improvements and innovations that emerge over time through inter-firm learning. From the interview responses it was clear that this took place both horizontally and vertically within the different value chains. For example, in chain A the producers were not in competition with one another. This resulted in producers engaging in knowledge sharing in informal social settings such as beverages at a local restaurant, as well as through formal workshops. Vertically, the producers and processors work closely together to improve returns through meeting quality targets, as well as reducing food wastage. Associative co-creation resulted when operational improvements were made between individual actors. This new knowledge was subsequently disseminated across the chain, resulting in network wide improvements, not just the dyadic linkages.

6.2.6 **Risks and Risk Mitigation**

Interestingly, and potentially alarming was that the majority of chains stated there were very few formal risk plans in place for producers. The main risks identified by participants across all chains were issues such as continuity of supply (inputs as well as their outputs); geographical restraints in terms of scalability of production and land management legislation; traceability and authenticity systems due to breaks and granularity of data, and maintaining brand integrity (see Table 6-1). Value chains D and E also highlighted key issues, such as dependence on a particular export market, and over reliance on one particular product line. In order to counter this, both focal firms were concentrating on building new markets and trialling new products. Hence, while there was a lack of formal risk plans and management in place in all cases, the chains were actively seeking to build resilience throughout the chain.

Table 6-1 Key risks and mitigation strategies across the cases

Risk	Mitigation Techniques
Continuity of supply	• Seeking additional suppliers and/or production areas • Contractual clauses • Innovation of production practices
Authentication/traceability	• Isotope testing • Radio-frequency identification (RFID) technology • Authorised sales platforms and retailers
Geographical constraints	• A shift from volume to value (branding) • Seek production opportunities elsewhere (e.g. production in both Northern and Southern Hemisphere)
Market dependence	• Engage in market diversification
Brand integrity	• Quality regulations • External audits • Direct communication with the end consumer • Alignment of chain core chain values and the brand story

Source: Author

Despite the lack of formal risk plans, the chains had a relatively high degree of resilience and adaptability built in through various instruments. For example, focal company A enacted contracts that shared risk and rewards. Additional risk was taken on at the retailer end of the value chain through a returns policy. However, this also meant that greater rewards were passed back upstream to producers. Further, social and financial support for producers in times of crisis was seen as crucial in developing resilience. In value chain B, the focal company were agile in terms of their ability to problem solve. However, the chain had issues around supply, and at the time of the interviews was unable to lengthen the supply season to all year round due to inadequate returns.

One of the major risks for value chain C and D was around authentication. Black market sales of raw product, and counterfeit sales to the end user were of great concern to these chains. For Value Chain C, this was for three reasons. First, the product has cultural significance (protected through legislation); two, the brand gained value from its promise of authentication and traceability; and three, black market sales destroy potential value capture through capturing part of the market, and degrading the offering as consumers were less able to verify brand claims. For value chain D, there was the potential for a quality perception problem to arise, but also reduced value capture. At the time of the interviews, both chains were investigating authentication systems and exploring the potential of isotope testing.

A key gap for most chains was in the end-market itself, in terms of the ability to project brand values, messaging, and images to consumers. The ability to control and maintain the integrity of the brand story throughout the chain to the final consumer was viewed as a critical component in being able to capture value. To mitigate this, the value chains undertook a variety of initiatives. For example, focal company A encouraged the bringing together of actors from different stages of the chain through a number of workshops and field trips. Additionally, this organisation encouraged the interaction of producers and consumers. They achieved this through trips to the final market, as well as running tours where consumers could visit the producers. All participants viewed this as a key way to reinforce the brand message, and it was noted by producers that this activity provided a tool to help understand and engage in the product and story being sold to consumers.

Value chain C and E found that encouraging actors in the value chain to understand and engage with the product offering was important for chain alignment. In chain C, interview participants from all stages of the chain felt a sense of pride in working with the brand, not just because the provenance of the product, but in some cases the link to indigenous Iwi identity. Further, the processors were able to communicate messages specific to each product line directly with the final consumer through the e-platform, and this was seen as an important means of connection to the end-user. In chain E, there was also a sense of pride that value chain actors attached to the brand. This was due to the direct connection of the brand to Māori heritage through connection and protection of the land, Māori ownership, and the connection to cultural practices. For example, new employees of the focal company attend a three day wānanga (educational visit) on a marae (meeting ground), with a particular focus on history and values to introduce them to the company.

Despite the efforts made by chain participants to control the brand and promote internal brand alignment, some chains were struggling with this. In value chain B for example, the focal company, who is also a producer, had influence on the brand story and approved the packaging. However, other producers who supplied product to the chain had no power over any of the marketing activities. Further, the chain relied on those downstream actors to communicate the brand narrative to the consumer, and consequently, there was very little connection between the producer and consumer. The main incentive for producers to remain in the chain was a product payment slightly higher than the industry price.

Finally, the failure to deliver on brand promises, especially after the chain had built trust with the consumer was noted as a risk to value chain perceptions. All case chains were aware of this potential issue, and many had strict quality regulations, or employed external bodies to audit and assess brand claims. Many noted that a truthful brand story had become a social license with which to operate. This is discussed further in section 6.3.2 where the emergent attribute of quality is introduced.

6.3 Emergent Value Chain Attributes

Through an analysis of the above attributes, two additional value chain attributes emerged from the data: (1) values; (2) geospatial considerations. These are related to those discussed in Section 6.2 however, the importance placed upon these by interview respondents' warrants greater attention. Hence, the remainder of the section introduces these as important additional value chain attributes.

6.3.1 Values

Values were seen as a key enabler for creating value. While the final consumer was seen as important in all chains, the respondents suggested that values were at the core of all value chain activities. Therefore, it is important to provide a brief definitional distinction between the term *value* and *values*. Value was discussed in-depth in Chapter 2 of this research and can be viewed as two constructs. Value-in-use referring to utility gained through consumption and value-in-exchange referring to the market price (Smith, 1784; Woodall, 2003). In contrast, values may be defined as the preference of certain states of existence over others (Hofstede, 1998; Rokeach, 1973), or beliefs about desirable states of existence (Vinson, Scott, & Lamont, 1977), and Chapter 7 will discuss this further.

The importance of values was highlighted by all of the value chains in being a critical component in developing collaborative relationships and acted as a governance mechanism in terms of aligning the chain. Additionally, these values were important in developing a brand identity and became key factors in the creation of relationships. In the value chains of D and E, a Karakia (Māori prayer) was said at the beginning of harvest and processing, further entrenching the chain identity within the values of Māoridom. Other chains had values more closely aligned with producing a natural food product. For example, members of value chain A valued sustainability, traceability, social responsibility, quality, and food safety and security. These values were then translated to producers by a variety of mechanisms such as contract arrangements, quality systems, and information sharing.

A shared values system was also an enabler of resilience in the value chains studied. Values acted as a way to foster a sense of community among actors, enabling a support system among chain participants. In particular, producers viewed this as important because food production is vulnerable to environmental factors. In value chain A, producers interacted in a variety of formal and informal settings, and in value chain B the lead organisation placed a great deal of emphasis on community. In the indigenous chains (C, D, E), the values of whanaungatanga (relationship, kinship, sense of family connection) and manaakitanga (hospitality, kindness, generosity, support) were highlighted in the responses received as important to chain cohesion and a supportive environment. Importantly, supply chain partners were selected based on the alignment to these commonly held values.

Based upon the above explanation, a shared values system creates a positive feedback loop that is shown in Figure 6-5. Shared values between chain partners aid in the development of trust and of collaborative relationships. This was particularly evident when the chains of case B and D are compared. In case B, firms along the chain acted in a collaborative manner and all of the relationships were formed by a handshake. In contrast, chain D was operated in a largely transactional way. There was little trust between chain partners outside of the producer and processing stages of the chain. In chain B, relationships were founded on a shared values system, whereas chain D was not. Having a set of common values across chain members resulted in an improved product offering. This was achieved through factors such as the inclusion of credence attributes, branding messages, packaging and labelling. The ability of the upstream chain members to communicate the brand story and product attributes was a tool for improved value capture. An outcome of this was greater relationship satisfaction and a reinforcement of the shared values system. Key to this was in searching for and collaborating with supply chain partners who shared these values from the outset.

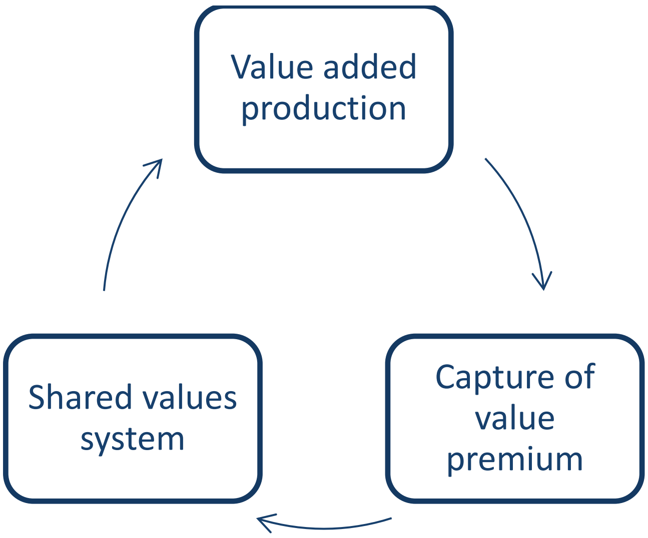

Figure 6-5 Positive reinforcement of a shared values system and value capture
Source: Author

6.3.2 Geospatial Considerations

There are several value chain geospatial considerations that affect product quality. The nature of land-based chains results in a product offering constrained by environmental factors such as location, soil type, nutrient profile, and climate. This creates a number of advantages and limitations. Environmental factors have a direct influence on the product attributes and the brand narrative. However, it can also cause limitations in terms of the varieties of product that can be grown and capital investment in plant for processing. Processing has a little more flexible in terms of location but New Zealand is located away from market and lead times have a direct impact upon product spoilage and other value destruction. Most of the examined value chains (with the exception of chain C) had production and processing locations compressed to a relatively short distance. The result of this was a reduction in transport costs and the maintaining of product quality. Where production was spread throughout different regions, processors were strategically placed within the growing area. Hence, value was added, rather than destroyed, affecting the firms' profits.

Time compression was an important consideration for these value chains, especially in terms of product development and time to market. In regards to product development, focal company A viewed the innovation lead time as a critical component in maintaining a competitive advantage in the market place. When dealing with perishable food products, chains are relying on logistics partners and so time to market and storage become important considerations in maintaining quality and reducing food loss. In chain B for example, product runs were relatively small to allow for contract supply to overseas markets, and make-to-order for the domestic market. This was important due to the short shelf life within cold stores, and ensuring that the product made it to market unspoiled.

Product quality was important to every value chain, however it was particularly critical in those chains dealing with food products, as food safety and security are of great concern. This importance was highlighted by several of the value chains examined, noting that product quality was a way of enforcing the brand promise sold to consumers and improving profits. Common actions were undertaken by the value chains in terms of entering into certification schemes audited by a third party, and having strict product requirements beginning upstream at the inputs/producer level. For example, value chain D complies with all environmental codes of practice as set by the New Zealand government, and value chain E is a member of the Sustainable Winegrowing New Zealand (SWNZ) certification scheme, managed by the national industry body. Further, some chains had additional schemes. In the case of company B, retailers from in-market worked face-to-face with processors on-shore to help develop butcher skills unique to those seen domestically. As a result, the meat cuts adhere to the tightly specified requirements of the market destination.

When the value chain attributes are considered holistically, they provide a view of the management decisions within the value chain. The next logical progression is an examination of the governance structures of the cases.

6.4 Governance Structures

During the interview phase with case study participants, a number of questions were asked regarding the overall governance structure of the case value chain. The responses suggested that there were a range of structures, or archetypes, present across cases. While the previous chapter explored the individual cases, the aim of this section is to show how the governance of each case overlapped or contrasted with one another. The responses of the interviewees is interpreted here via two means. The first is by investigating the levels of governance centralisation and also product type / attributes, and the second to investigate, categorise and describe the overall structures of each chain, including relationship types and sources of information. The aim of this analysis is to gain a deeper understanding of how product types and degree of governance centralisation influence the overall structure and function of the value chains.

6.4.1 Centralisation and Product Type

Previously this research has emphasised the adoption of value chain thinking (see Chapter 1). This requires the view that the final consumer is the arbiter of value, and that all chain activities should be aligned to meet consumer demands (Fearne et al., 2012). Utilising this perspective, there are a number of related factors that can be identified from the case studies. Table 6-2 highlights some governance factors and notes elements related to chain participation, locus of power, product and branding, and market research.

Table 6-2 Value chain elements related to governance

Value Chain	Upstream firms able to participate in other value chains	Focal firm a leader in terms of both power and vision	Product captures a value premium in-market	Brand ownership maintained through to final consumer	Focal firm undertakes market research	Market information adequately shared along the chain
A	✘	✓	✓	✓	✓	✓
B	✓	✘	✓	✓	✓	✓
C	✘	✓	✓	✓	✘	✓
D	✓	✘	✓	✘	✘	✘
E	✓	✘	✓	✓	✓	✓

Source: Author

The circumstances around a firm's ability to participate in other value chains of the same or similar product type was unique to each chain. In the context of chain A, the focal firm operated as a single desk seller of New Zealand exports. As a consequence, many of the upstream domestic value chain stages were 'locked in' to supplying this particular chain, with the exception of holding a special release. This was a similar case for chain C, whereby processors were bound to the chain through a licensing agreement, and similarly, the input supplier was bound by the presence of indigenous customary rights that are not available to other commercial actors.

In contrast, to chain A and C, firms in chain B had more autonomy and producers were not required to supply all livestock to this particular chain. Additionally, as the chain was considered a 'boutique' size, the limited volume throughput required all chain stages to engage in multiple value chains. Value chain D and E were unique in terms of firms being able to participate in other chains. The focal firm in both of these chains was the processor and there was also some vertical integration with producers. However, some supply into the chain was based on specification contracting that was periodically renewed. This provided some freedom for contractors who had the ability to supply volumes above the specified quantity into other chains, and to not renew contracts if they wished.

Within the cases it became clear that the focal firm of the cases was not necessarily the chain member with the most economic power. In this sense, there were essentially two different types of leadership within the chains. The first was the *vision holder*. That is, the chain member who set the chain direction through values and the story of the product. The second was the *power holder* who had influence due to economic resources (see Section 6.2.4 for a more detailed description of these leadership types). Whether or not these leadership types lay at the same stage of the chain provides an indication of governance centralisation. For example, in the case of chains A and C the focal firm held large amounts of power in terms of chain coordination and the branding of the product offering. Therefore, the power in the chain was centralised to one organisation. However, in the remaining three chains the leadership and power of the chain was more distributed.

All of the cases produce what can be described as a value-added product and how this was achieved in each case is illuminating. In the case of chain A and E where the market was relatively saturated and there is high competition, the product was of superior quality to other comparable products in the market place. In contrast, while chain B sold a product of high quality, there was also a reliance on the credence attributes of the offering to create a unique selling point. Chains C and D were able to achieve premiums due to the product type. Both produced a niche product difficult to imitate. Chain C was able to achieve this through legislative protection and contracting between the processors and the distributor. Chain D was reliant in part upon legislation regarding water rights, and in part upon natural resources and the product offering being a species unique to New Zealand.

Despite all chains producing a value added product, it appeared that the ability to maintain brand ownership through to the final consumer affected chain members' ability to capture value. This could be seen when comparing the cases of chain A and D. In chain A the brand is maintained from the producer through to the final consumer via an extensive marketing program and a centralised commercial power structure. This allowed the chain to capture significant premiums for the product offering in-market, and this value creation to be shared back upstream to the various chain stages. In contrast, chain D had an issue with maintaining brand control into the marketplace. This control was lost at the distributor level through repackaging and therefore, some value creation was destroyed as the consumer loses visibility of the origin of the product and is unable to adequately assess credence attributes. As a result, the upstream firms of the chain were price takers, as opposed to having some negotiating power.

Market research is a key part of market orientation and understanding the final consumer, and being able to respond to consumer demands requires the sharing of market information among the various value chain stages. This is a key concept of value chain thinking. Three out of the five cases actively conducted market research and shared this information along the chain in an effort to respond to these demands. However two of the cases did not engage in market research. In chain C the main method of understanding consumer demand signals was via sales information (volume and type). The products available in the market place are altered every two years according to sales, and the processor has some direct contact with consumers when they are looking to purchase a tailored product. The e-platform provides a way for different stages of the chain to communicate operational information, and for the focal company to gather data relating to consumer trends. In terms of chain D, The focal company operated a customer relationship management software module to aid in forecasting. However, this organisation was somewhat disconnected from the final consumer, fulfilling orders based upon distributor and wholesaler demands.

Taking the governance elements into account, the case chains may be graphically displayed by governance centralisation and product type. These range from decentralised governance to centralised governance, and from commodity products through to value-added production. Where governance is centralised, one firm is responsible for the coordination of the chain. In contrast, decentralised governance results in firms acting with more autonomy in the chain, and these chains may or may not be driven by a set of common goals or shared values. A value chain structure suggests the production of value-added differentiated products. Alternatively, a commodity chain suggests the production of a generic product with little focus on attributes outside of product attributes, i.e. credence attributes. A summary of the distinctions between chains can be seen in Figure 6-6. Following this, the next section explores the second objective of this chapter section: to investigate, categorise and describe the overall structures of each chain, including relationship types and sources of information.

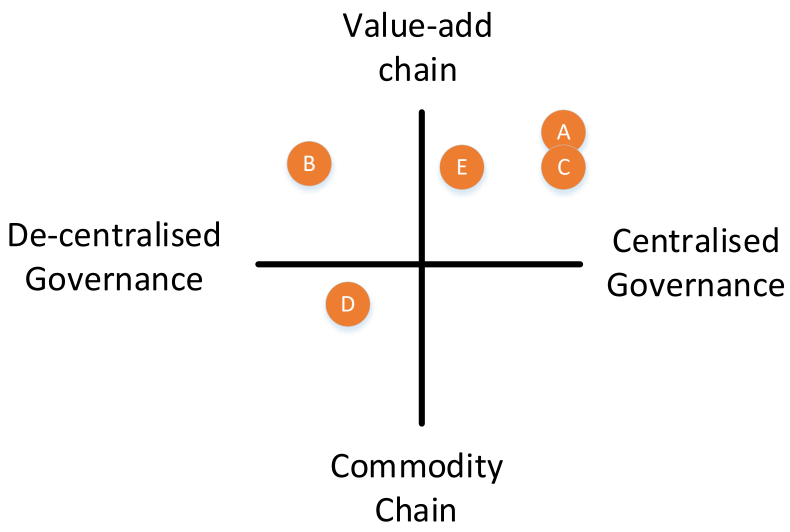

Figure 6-6 Degree of centralisation of governance versus chain type
Source: Author

6.4.2 **Value Chain Archetypes**

During the interview phase, questions were asked regarding factors such as overall chain structure, relationship types, and sources of information. The purpose of gathering this data was to analyse the different governance archetypes that existed across the different cases. As a result, five unique archetypes have been identified, and an overview of the governance attributes for each of the cases is shown in Table 6-3.

Table 6-3 Governance attributes of the cases

Governance Characteristic	Case A	Case B	Case C	Case D	Case E
Vision Holder	Distributor	Producer	Distributor	Processor	Focal company (Processor and producer)
Power Holder	Distributor	Distributor	Distributor	Retailer	Retailer
Lead information distributor	Distributor	Producer and Distributor	Distributor (via the e-platform)	Isolated to each stage of the chain	Focal company
Type of governance	Market Oriented (Meeting the needs of the final consumer)	Distributed (with a shared values system)	Virtual	Market	Centralised (with a shared values system)
Dominant relational type	Close and relational	Close and relational	Relational one tier from focal firm. Otherwise arms-length	Arms-length	Close and relational from producer to distributor

Source: Author

In value chain A, the focal company acted as a strong leader in terms of chain vision and economic power achieved through economies of scale. In this chain there was a great deal of attention paid to the final consumer market. Considerable effort and resources were placed into understanding consumer needs and ensuring that these were translated into action throughout the chain. Consumer data was gathered by retailers who stock a wide variety of products, however, information specifically relating to the chains' product offering was gathered by the focal firm. Therefore, it can be said that firm A acted as an information distributor, both towards the consumer in terms of marketing messages, and to upstream stages who rely on information for production guidance. Further, the chain operations are motivated by gaining customer satisfaction, and thus, the adoption of a market orientation.

In terms of relationships within chain A, the management of the focal firm had made a conscious effort to minimise the effects of hierarchy through instituting a flat governance structure. Interview respondents stated that they felt they were able to talk to the Chief Executive Officer of focal company A, and that the management team were approachable. Various interview respondents noted the chain culture as "one big family". Further, as the focal company owned the intellectual property rights of the product, there were close relationships between input suppliers, farmers, and the research and development team of the distributor. Despite some conflict between the processing and distributor stages of the chain, it can be inferred that close relationships exist between the lead firm and the other stages of value chain A.

Value chain B was developed in response to environmental regulations that forced a reduction in stocking rates on farms within this particular geographic area. Consequently, there was a need to move away from volume production towards value-added production to ensure that farming within the area remained economically viable. Recognising this as a business opportunity, the focal company of the chain began to change land use practices to meet consumer demands and achieve a premium for doing so. As a small organisation, the owners used their own personal values to influence their farming practice and aimed to establish relationships with other like-minded businesses whose operations had been shaped by similar values. The outcome of which was a value chain driven by a shared values system (this is explained further in Section 6.3.1 and 7.3.4).

Due to the small size of the chain, there was difficulty in achieving economies of scale. The distributor and the processor both commented on the need to participate in multiple value chains to remain a profitable business enterprise. Consequently, firms maintained autonomy in terms of operational choices and chain participation. In other words, the businesses involved in value chain B each held individual values and business goals, but these also aligned with the overall vision of the chain, for the time being.

In terms of governance, the interviews revealed that there were close relationships among chain actors. Nevertheless, there was a difference between where the power holder and vision holder were situated. The power holder of the chain was the distributor, and this actor was able to highlight the intrinsic and extrinsic product attributes through packaging, marketing, and retail sales. However, the distributor acknowledged the importance of the focal company (producer), and other chain actors also recognised the role of the producer in driving the goals and vision of the chain. In this sense, the producer acted as the chain leader and the symbiosis of the differing roles could be seen in the gathering of market intelligence. The distributor worked with consumers and retailers to determine what sort of meat cuts consumers were demanding. This was then translated through the chain as demand specifications. In contrast, the producer was interested in building consumer relationships, understanding the importance of product attributes, and raising brand awareness. Hence, one actor was focussed on operational aspects, and the other on the brand story and consumer communication.

In contrast to chain B, value chain C was led and controlled by the distributor. The unique licensing requirements for participation in the chain has led to a centralisation of power. The main coordination tool within the chain was the virtual platform managed by the distributor. This platform provided a way for different actors of the chain to communicate with each other, and place raw material orders. The final consumer was also able to order directly from the front facing website, and to contact specific processors for a custom product. In this sense the virtual tool was the main governance mechanism within the value chain, providing a both a coordination and sales function.

Within this chain the focal firm maintained close relationships with processors and with retailers where possible. However, relationships were at arms-length with the producer (miner) and there was limited contact with the final consumer. In this sense, the focal firm was disconnected from the final consumer, and this was compounded by the lack of market research. Instead, there was a reliance upon the e-platform to provide data such as sales information that allowed the extrapolation of purchase trends, and hence, development of the following product catalogue.

In value chain D the main driver of value was the marketplace. The focal firm in this chain was the channel leader as they were driving the production, harvesting, and processing of the product. However, the focal firm held little power in terms of being able to negotiate pricing and was reliant on two key accounts for sales. As a consequence, operations were dependent upon signals from the market in terms of harvest and processing of the seafood. This issue was compounded by the lack of market research by the focal firm. There was a lack of understanding of what the final consumer was demanding, and as a result the upstream end of the chain was unable to capitalise on these demands through the use of branding.

Relationships within case D were mainly arms-length. This presented some challenges with regards to sharing of information throughout the chain. Interviewee respondents noted the lack of information sharing, highlighting the absence of information about the final consumer, as well as limited sharing between different value chain stages. Other cases within this study revealed the importance of information sharing in the ongoing communication between firms and the development of trust. Hence, in this chain visibility was weak and there is potential, especially for downstream chain actors, to engage in opportunistic behaviour.

In value chain E, the values that businesses held dictated participation in the chain. The focal firm had a particular set of values that they wished to embody not only in relationships with other chain members, but also the product offering itself. This was particularly important to the focal firm as values were based on te ao Māori principles and careful selection of partners ensured that these were shared with the final consumer. This also worked to create a value chain culture of kinship, integrity, and environmental stewardship (refer to Section 5.6.1.4 for more detail). Therefore, Company E acted as the chain leader and drove the vision of the chain, partnering with other firms who aligned with the values of the business.

While the focal company was the channel leader, the power within chain E was situated at the retail stage. The focal company maintained a close relationship with the distributor in the chain however, lost control (ownership, pricing, and branding) of the product at this point. The main retailer was a large supermarket chain operating in the United States and interview respondents had noted the lack of bargaining power with this actor. The issue was exacerbated by the American legislative system preventing the focal company from marketing directly to end consumers. Consequently, there were several initiatives undertaken to ensure connection with the end market and a mitigation of opportunistic behaviour. These included brand ambassadors in-market, market research, and maintaining close collaborative relationships that aligned with the focal company values.

When the aforementioned attributes of the cases are compared and contrasted, a picture of the various value chain governance types emerge, and may be graphically displayed. Figure 6-7 highlights these through a side-by-side illustration of the five cases. Each generic stage of the value chain is shown and the vertical distance between these illustrates the ‘closeness’ of an association between each stage of the chain. The closer the actors, the more collaborative the relationship. In addition to this, relationship types between a chain stage and the focal firm are shown through coloured boxes and denote whether the relationship is more relational or transactional in nature.

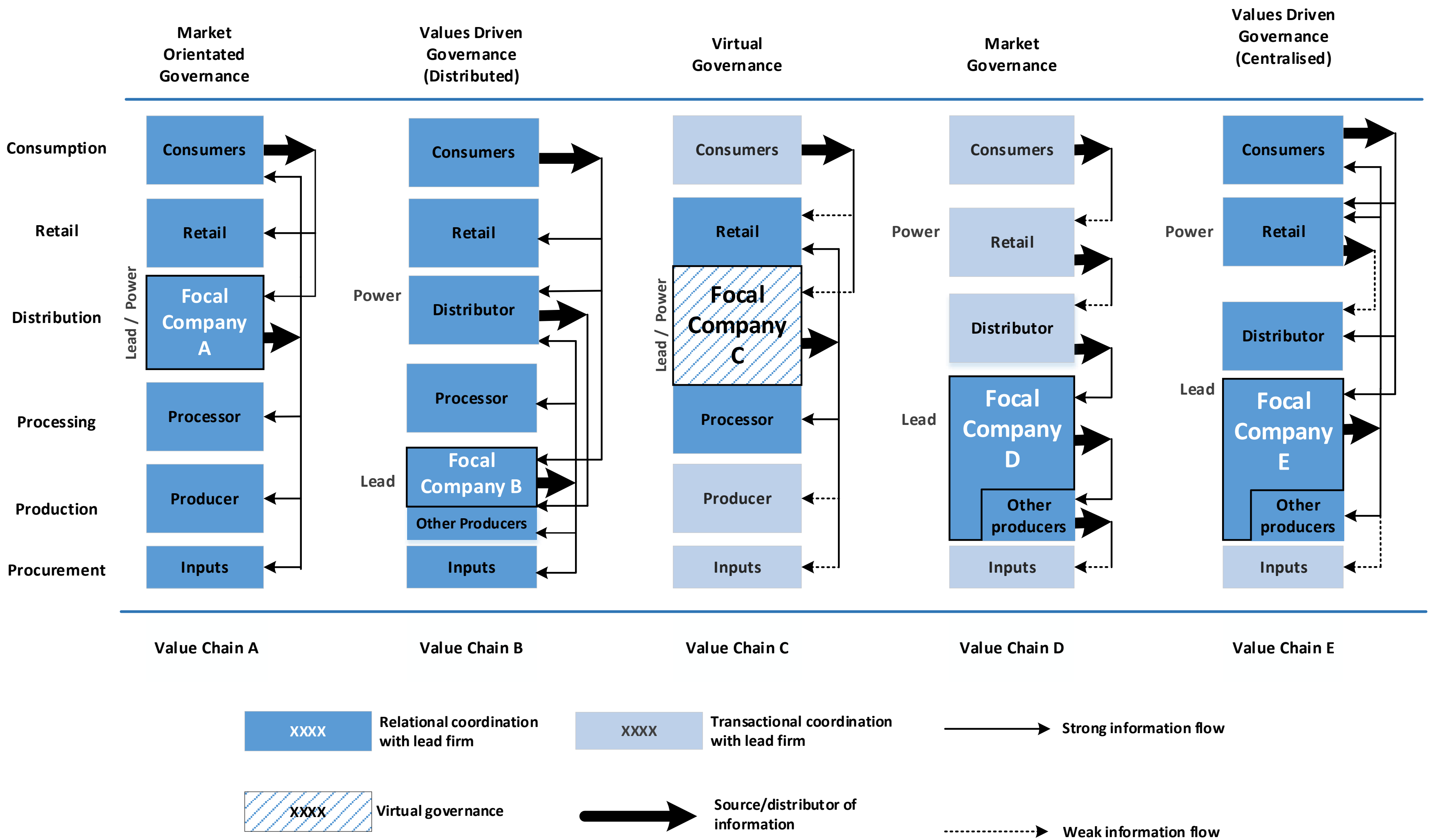

Figure 6-7 value chain archetypes

Source: Author

The preceding analysis showed that information was distributed differently in each of the chains and different firms were responsible for the sharing of information along the value chain. In Figure 6-7 this is shown with arrows to highlight stages that may be considered a source of information for chain actors, as well as the strength of the information flow. Finally, above each of the chains is the form of governance that has been identified in this analysis: (1) market oriented governance; (2) values driven governance (centralised and distributed); (3) virtual governance; and (4) market governance.

Interestingly, Figure 6-7 highlights the relationship between information sources and/or distribution, and the position of the power holder and lead firm within the chain. Where the leader and power holder were the same actor (as in the case of chain A and chain C) information about the final consumer was able to be gathered directly by the focal company and disseminated amongst chain members. In contrast, where the power holder and lead firm lay at different stages of the chain, such as in the case of studies B, D, and E there was potential for multiple sources and distributors of information. However, the risk of selective information sharing was mitigated in the case of chain B and E through the use of in-market strategy. The focal company was able to gather market intelligence directly from the end consumer and share this with upstream firms. In the case of chain D information sharing was disjointed, adding to existing chain issues.

6.5 Summary

The attributes under investigation in this study have highlighted that many of value chain attributes have close linkages to others, yet each is distinct. For example, it is difficult to implement a market orientation, yet have a lack of information sharing. Further, the addition of two emerging value chain attributes showed the importance of operational factors alongside relational ones. There was a consensus among interview participants that it is not possible to operate a value chain without an emphasis on product quality and the brand story. Quality acts as the market qualifier, and the brand narrative as the order winner.

In addition to attributes, this cross case comparison has shown the unique governance archetypes present within the New Zealand agribusiness industry. The typologies that have emerged provide evidence that when it comes to issue of governance and value chain structure, there is no 'one size fits all'. Further, the results showed that there are a number of governance structures able to create value and appropriate this along the chain. Some chains were more collaborative than others however, all were aligned through shared goals, visions, and values.

The results presented in this chapter highlight the importance of the consumer, social mechanisms, strong leadership, and product innovation and quality. The following chapter provides a more in-depth discussion to discuss the key findings of this study. Following this, the chapter notes the theoretical and managerial contributions of this research and proposes areas for future investigation by researchers.

Chapter 7

Discussion and Conclusion

7.1 Introduction

The issue of value is a key concern for all businesses, and in the agribusiness industry this is somewhat exacerbated due to a history of commodity production in New Zealand (Press et al., 2014). The macro and micro-environmental factors affecting the agricultural industry has led to a business environment evolving towards the creation of differentiated value added product offerings (Matopoulos et al., 2007). Further, changing consumer demands have driven chains to produce value added products, often emphasising product and credence attributes through branding (Papadatos, 2006). This lends itself to two important considerations: that of value chain upgrading and governance.

For value chains to shift from commodity production to value added production, actors must improve their production efficiency and effectiveness and also move into more skilled activities (Kaplinsky & Morris, 2001; Porter, 1985). A crucial component of this ability to change production is governance. However, the supply chain literature has struggled to adequately address the issue of value chain upgrading and governance (Gereffi & Lee, 2016). This research has attempted to address this research gap through an investigation of those chains in the agribusiness industry that are able to capture premiums in-market, but also ensure that value is passed along the chain back upstream to producers. To achieve this, this study has a particular focus on those attributes that are related to the governance of a value chain thus, allowing different chain typologies to be identified, highlighting those governance attributes important to chain actors when engaging in inter-organisational relationships.

The literature review of this study (Chapter 2) explored the concept of value and the management and governance of value within value chains. The chapter noted a lack of research surrounding value creation and capture at the supply chain level, yet noted the significant amount of research surrounding the firm and dyadic governance of value. However, within the supply chain literature there was some debate around the Resource-Based View of the firm and the applicability of this theory to research at the supply chain system level. An additional deficiency in this field is the lack of research exploring end-to-end chain governance as this is still a developing research area. Hence, one of the contributions of this research highlighted in Chapter 3 was the identification of a number of value chain attributes that were considered important in facilitating the production and marketing of value added products.

Chapter 3 also expanded upon the findings of the literature review to help develop the conceptual framework for this research. The chapter acted as an extension to the literature review where the attributes previously identified were explained and a theoretical decision making model designed to help guide the research was developed. The framework highlighted both the intra-firm and inter-firm decisions surrounding the attempt to achieve value outcomes. The main advantage of this a framework is that it makes the value chain the main unit of analysis for this study. Taking into account the dearth of research in this field and the nature of the model, Chapter 4 outlined the methodology for the study: an exploratory qualitative multiple case study method. Five value chains, that have a track record for generating value for producers and where accessible were purposefully selected by the research team. Face-to-face, semi-structured interviews were selected as the most appropriate data gathering tool during the field phase resulting in the completion of five in-depth case studies.

The case results in Chapter 5 and the cross-case analysis in Chapter 6 outline the findings of the research phase. These results highlighted that each chain did indeed have a unique governance structure, and the breadth of interviews across the value chain led to some interesting findings. The current chapter highlights these and anchors the findings in prior research, adding to the evolving dialogue regarding value creation and capture. The current chapter is set out as follows. First, the research questions are addressed in section 7.2, and the original governance decision making framework is revisited. Section 7.3 reviews the key findings of the research, relating these back to the extant literature. As such, this section also offers a number of revised propositions post analysis. Section 7.4 discusses the conclusions of this research, highlighting the contributions and limitations of this study, and offering directions for future endeavours in this topic area.

7.2 Revisiting the Research Questions and Conceptual Framework

In order to discuss the key findings of this research, it is important to reconsider the overarching research questions and the framework developed to direct this research. The study was guided by a set of three related research questions designed to investigate the issue of value and governance within value chains. These were:

RQ1. How is value created and captured within agribusiness firms and supply chains?

RQ2. What is the role of governance in the value creation and capture of agribusiness value chains?

RQ3. What are the key attributes of high value agribusiness value chains?

Interestingly, in addressing the first research question, it was revealed that most firms in the study sample view 'values', rather than 'value' as the key driver in the creation and maintenance of the value chain. This was seen as the critical factor in relationship development, and also acted as drivers for value chain activities and coordination. In terms of organisations achieving value outcomes, market orientation was seen as a crucial attribute. Here, the majority of the value chains recognised that the end consumer was the reason for the chains' existence and so understanding the customer and meeting their needs was paramount. This was particularly important in the instance of in-market gaps. In chains where the retailer held a lot of economic power, or there were legislative barriers to retail advertising, ensuring that final consumers were well understood was of great importance. Firms would then use this information to direct/align chain activities as well as they could. This leads to three main findings: (1) values were viewed as more important for value chain alignment and relationships than the product and service value provision; (2) market orientation was also a key attribute in both understanding the final consumer and transmitting these values throughout the value chain; (3) value was primarily perceived in terms of economic value appropriation (capture). This was realised by the ability to meet consumer demands via the design and execution of value chain activities.

The second research question was focused on the role of governance within the value chain. It was found that value was aligned with the values of chain members, rather than as a response to where power resided. In other words, those value chains that created product offerings that aligned with member's values had a greater focus on consumer needs and communicating the brand narrative throughout the channel to the consumer. This resulted in product differentiation and hence, greater value capture as product differentiation allowed the chain to command price premiums, and not lose brand control to the retailer. In this sense, the upstream chain was able to retain some power through the negotiation of contracts and the communication of the brand narrative with final consumers. In addition, a concentration on the governance of the chain revealed a number of different relational archetypes present in the cases. However, these do not strictly adhere to the extant literature, suggesting a degree of novelty in the governance, but also that more research in this area is warranted.

Finally, the third research question revealed three key things. Firstly, having a shared values system within the value chain fostered a sense of community where chain members felt 'part of something bigger' or, a sense of belonging. This worked in unison with formal contracts that were also designed to not only incentivise value production, but also in some cases sharing of risks and rewards. The outcome of this was an increase in resilience and adaptability in the chain. Secondly, participating in value co-creation activities with chain partners increased dynamic capabilities and allowed value chains to better respond to consumer demands. Finally, it was found that chain reconfiguration was limited by the product offering and the resource allocation restrictions of production. Thus, highlighting the need for close relationships enabled through a shared values system, chain activities driven by consumer needs and innovative practices, and the development of formal risk strategies in order to adapt and reconfigure to value chain disruptions. These crucial areas are distilled further in the following discussion of the key findings.

7.2.1 The Conceptual Framework

In terms of revisiting the conceptual model, a governance decision making framework was developed in Chapter 3 and is re-illustrated as Figure 7-1 below. The framework investigated the issue of governing value creation and value capture through the lens of actor decision making. During the data collection and analysis phase of this research it became evident that there were some theoretical inconsistencies between the initial research framework and the actual case results. Such differences in this type of research are not unexpected and is a natural outcome of knowledge generating research. Consequently, the purpose of this section is to revisit the conceptual framework for this study, in order to then discuss key findings in the subsequent section.

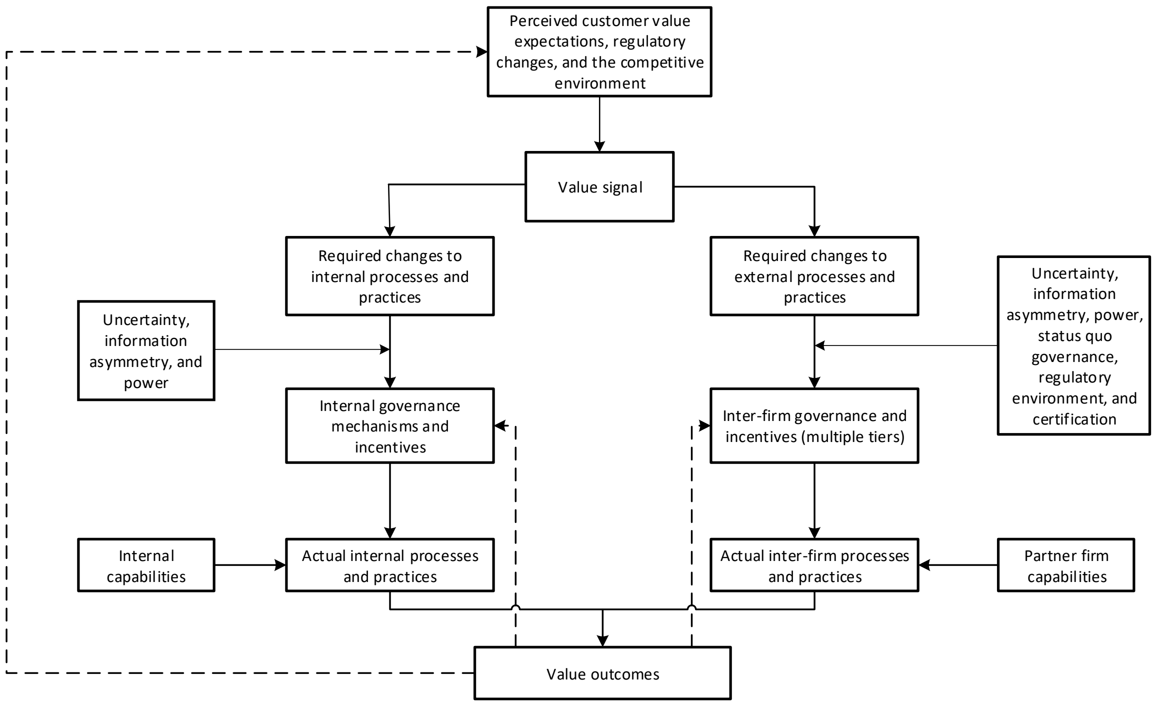

Figure 7-1 Governance decision making framework
Source: Author

In terms of theoretical paradigms, the initial research framework proposed that Agency theory in part, could help to explain the internal governance mechanisms and incentives within firms. However, this research found no evidence for this claim in the data collected. This can be explained by the major focus in the data of inter-organisational governance mechanisms, rather than the intra-organisational mechanisms. Arguably, this is a limitation in the research design that should be addressed in future research through a greater focus on the contract types and design that exist within organisations. In contrast, the results did indeed provide support for the use of Agency theory in explaining inter-organisational coordination and this finding is consistent with a number of other studies (Beccerra & Gupta, 1999; Lajili & Mahoney, 2006; Lassar & Kerr, 1996; Logan, 2000). The results of this study highlighted the importance of contracts and incentive clauses, such as risk mitigation for retailers regarding return clauses with the distributor, and revenue sharing contracts related to quality and volume.

The initial framework aimed to explore whether or not there was some support for the argument of the Resource Based View extending to the whole of the value chain. At the dyadic level, co-creation between firms emphasised the sharing of both tangible and intangible resources to create a unique combination that resulted in actors being able to leverage these new resources. At the system level, the analysis highlighted the unique competencies of the value chains as a whole that allowed them to gain competitive advantages in the market place. For example, value chain B operated a sustainability model that began on farm and was exploited further downstream where meat was uniquely processed to meet specific consumer requirements. The creation of several isolating mechanisms (see Section 2.3.2) along the chain placed the product in a unique market position, able to command a price premium. Hence, at both the bilateral and system level, the paradigm may be applied, and is an interesting area for future research, especially the synergies between the development of bilateral resources and their impact on value chain resources.

Finally, the role of values was not initially considered. During the data collection phase of this study it became evident that firms believed values were central to firm activity. This extended to both the way in which activities and processes were handled internally, and also provided a philosophical framework with which to engage in external relationship development. Along this line, it is argued that values (such as a sense of oneness, or care for the environment as examples) become entrenched within the value chain over time and may be viewed as an intangible asset of the chain as a whole. The key point is that these values are woven into the brand narrative, and also the way activities in the channel are conducted. Additionally, the manner in which these values are held and deployed by each chain is unique and therefore, may be leveraged to create and capture value. Hence, they act as both value generating and isolating mechanisms simultaneously. Given these findings when compared to the original conceptualisation of this research, the framework is re-vised and presented in Figure 7-2.

The revised framework encompasses two key changes. Firstly, the importance of innovation and information sharing is highlighted as a critical factor in the decision to alter processes and practices within the value chain. As such, the results highlighted that value signals from the final consumer were drivers of chain activities. However, the ability to recognise and adapt to these signals was driven by the level of innovation and information sharing. Hence, reinforcing the concept of interdependencies between firms within a chain.

The second change to the framework rests around the importance of values. As previously stated, values were not initially considered as a driving force. However, the results highlight these to be of great importance. In order to account for this, the revised framework places these at the centre of the diagram, representing the diffusion of these values throughout the decision making process of the value chain. Values act as an intangible moral boundary to activities and relationships; what a firm will or, will not do, is directly related to the values held by chain members. Hence, these values dictate things such as which value signals are responded to, how relationships are selected and structured, how opportunities and challenges are reacted to, and which processes and practices are enacted. The results highlighted that it is often the channel captain who drives this process, and instigates selection of chain partners. Following this revision of the research framework, this chapter now turns to a discussion of the key research findings.

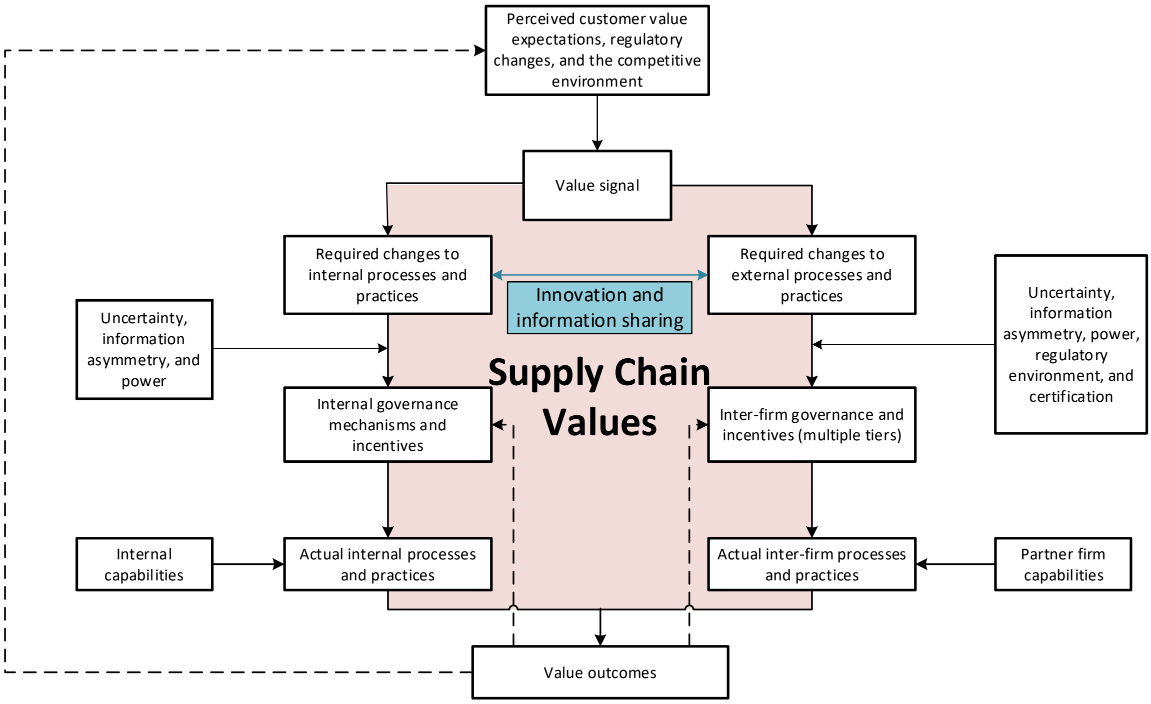

Figure 7-2 A revised conceptual framework of the focal firm's governance decision making to create and capture added value in the value chain
Source: Author

7.3 Discussion of Key Findings

The results of this research were guided by the research objectives noted in Chapter 1, and data collection was aided by the interview protocol outlined in Chapter 4. The protocols were based upon the eight hypothesised value chain governance attributes and Table 7-1 highlights the initial research propositions and whether or not these were confirmed by the results. This provides an anchor point for the following discussion of the key findings. A key quality measures for any qualitative case study is internal validity; are the findings plausible, and descriptions meaningful (Yin, 2018)? One way to test for this is to align the findings of the research with the extant literature to find similarities and / or inconsistencies. Therefore, this discussion section highlights the key findings of the study, and offers revised propositions based upon the results of the analysis.

Table 7-1 Revisiting the research propositions

Initial research propositions	Confirmation
P_1. Value creation and value capture are facilitated by a market orientation.	Confirmed
P_2. Network governance that promotes high levels of information visibility and symmetry at each level of the value chain will increase in-market value creation and capture.	Partially confirmed
P_3. The alignment of incentives through network governance will lead to better value outcomes for chain members as activities are directed towards meeting in-market demands.	Confirmed
P_4. Value chains that have a lead organisation who use non-coercive sources of power achieve greater value outcomes through centralised decision making, and improved relationships.	Confirmed
P_5. Network governance arrangements based on the collaborative protocols of common goals facilitate value creation and value capture.	Confirmed
P_6. Co-creation of value is enhanced when firms proactively seek to combine their tangible and intangible resources.	Partially confirmed
P_7. Value creation and capture is maintained through resilience to both endogenous and exogenous business disruptions.	Not confirmed
P_8. A network governance structure that maintains brand control downstream to the end consumer enhances the brand promise and value capture.	Partially confirmed

Source: Author

7.3.1 **Caring for the Consumer**

The extant literature argues that a market orientation is a critical antecedent for firm performance and has received a great deal of attention within the literature as a driver of value creation and capture (Gheysari, Rasli, Roghanian, & Norhalim, 2012). In this study, the majority of the value chain actors regarded understanding the final consumer as crucial to remaining competitive. Further, it may be said that adopting a market orientation goes beyond satisfying explicitly stated needs of the consumer, but is also concerned with latent needs (Slater & Narver, 1998). Therefore, it has a long-term and proactive focus. This is consistent with the findings of the cases as many of the lead firms in the chains engaged directly with the final consumer, and those larger chains actively engaged in market research in an effort to better understand consumer trends and preferences in order to adapt future strategies and operations.

Within the cases, the adoption of a market orientation was supported by the concept of Manaakitanga, whereby caring for both the consumer and other chain members' results in benefits for all involved. In terms of the chain, close relationships among members was important in the creation of a sense of community among actors. It also aided in the acceptance and entanglement of values within operations, and hence, the alignment of goals through the value chain. In contrast, when looking towards the final consumer, an embodiment of this concept meant that the product offering met consumer needs, and met all quality and safety standards. In order to place caring for the consumer at the center of business operations, information sharing was regarded as critical among chain members, and largely facilitated by the lead firm in the value chain. This finding is consistent with the adoption of a market orientation as proposed in section 3.2.1, as caring for the consumer requires firms to understand the marketplace and respond to these value signals. Therefore, the initial proposition is amended as follows:

> **P_1.** Market orientation via caring for the consumer enables ongoing systemic value creation and capture.

The results of this case study suggested that in general, there was a disconnection between the producer and the market. Indeed, it appeared that value chain A was the only case in which the focal company made a strong effort to connect the two stages. This is concerning given an important factor of collaborative efforts is an agreement on common purposes and joint goals (Fearne et al., 2012; Wang & Wei, 2007). Further, value chain A also identified that connecting various stages of the chain was important in being able to get actors to engage in the product and buy into the brand story being sold to end users. For consumers, gaining visibility deep into the productive mechanisms was the key way of verifying the brand narrative being sold. When firms sell product offerings to end consumers they sell a bundle of product attributes that are subjectively perceived (Lancaster, 1966; Smith & Colgate, 2007). Therefore, it is logical that connecting the consumer with the point of production would elicit positive emotional responses in terms of verification (provided the organisation is truthful and ethical) and hence generate customer satisfaction. Thus, it is proposed:

> **P_2.** Bi-directional supply chain visibility enables the alignment of value from the consumer to the producer.

It is acknowledged that this proposition may not be able to be generalised to all industries. Indeed, land-based production, particularly when producing food products, has a close emotional connection with the consumer (Silkes, Cai, & Lehto, 2013). The way in which the product is treated / grown has a direct impact upon human health through consumption. However, in the case of a non-perishable, non-land-based products, the consumer may not have such a close personal interest in the way that the product is produced, despite production being a part of a value chain. Consider the example of an offering of digital technology, such as a cell phone. In this example, the organisations will still aim to create an emotional connection (Berry, 2000), but this may be linked to social connections and conspicuous consumption, rather than human health (Baalbaki & Guzmán, 2016; Holbrook, 1999). Therefore, linking the consumer to the producer or processor may not provide sufficient advantage to justify the investment needed.

7.3.2 Innovation and Quality

Innovation and learning was seen as critical in ensuring that the value chain remains competitive and continues to produce value-added differentiated products. This was largely facilitated through value co-creation, as it allowed the development of dynamic capabilities and improvement of the market proposition. This is consistent with extant literature, whereby a concentration on innovation and co-creation is associated with greater value outcomes for chain members (Ngo & O'Cass, 2009; O'Cass & Sok, 2013; Westerlund & Rajala, 2010). Additionally, the research surrounding co-creation is not specific to agriculture, but has been researched in business areas such as knowledge solutions (Aarikka-Stenroos & Jaakkola, 2012; Jaakkola & Hakanen, 2013), restaurants (Enz & Lambert, 2012) and the motor industry (Marcos-Cuevas et al., 2016). In addition, the cases illustrated that those chains that had a lead firm structure were more successful at innovation and co-creation as the chain was overall better coordinated than more dissipated structures. Therefore, the findings from this research suggest that while this study concentrated on the agribusiness industry, the findings surrounding co-creation can be generalised to other industries and hence, it is proposed:

> **P_3.** Value chains with a lead firm structure foster greater levels of co-creation within the value network.

Product quality was also important to the value chains examined, and was seen as a tool to reinforce the brand promise sold to consumers. Certification schemes and quality control programs were undertaken by most of the value chains and communicated to consumers through labelling and the telling of the brand story. Further, supply chain visibility allowed the consumer to investigate brand and quality claims, resulting in an increase of trust and brand awareness by consumers, and this is consistent with a number of other studies (see for example Alan & Kabadayı, 2014; Amron, 2018; Soedarto, Kurniawan, & Sunarsono, 2019). Initially, the issue of product quality as a physical attribute was given little attention as the study was focused on the behaviours of firms, rather than the product itself. However, it became evident that quality was a key driver of innovation (González-Cruz, Roig-Tierno, & Botella-Carrubí, 2018) and also closely tied into incentives (Yoo, Choi, & Kim), brand ownership and truth (Soedarto et al., 2019), and market orientation (Elg, 2002). Therefore, the issue of quality is an important consideration of the management of value chains and as such it is proposed:

> **P_4.** High product quality ensures the trustworthiness of the brand narrative via audits and certification.

7.3.3 Governance

Based upon the governance typology created by Provan and Kenis (2008) it was suggested that value chain governance sits along a continuum of centralised and decentralised coordination. The results of this study showed a range of governance structures, yet centralised governance proved to be a more effective arrangement. In this case, centralisation acted as a mechanism that aligned incentives while also aiding information sharing among chain members. The extant literature also highlights the importance of incentives for information sharing along the supply chain to meet consumer demands (Raghunathan, 2003). Further, information sharing may be seen as an antecedent of collaborative relationships as it aids in the development of trust and ongoing communication among chain partners (Fischer, 2013). Therefore, it is proposed:

> **P_5.** Centralised value chains facilitate collaboration and alignment between value chain members and allows for greater value outcomes.

In terms of power, within the GVC literature Lee and Gereffi (2015) propose that multinational enterprises often act as the lead firm and power broker. This is supported by Kähkönen and Tenkanen (2010) who also suggest that the power holder is the chain leader. Other authors define the power broker by the influence they are able to exert on partners, and that chain relationships are characterised by asymmetric power balances (Hingley, 2005; Nyaga et al., 2013). In food supply chains it is often the retailer who holds the power and imposes "…their rules during commercial exchanges with suppliers by using various commercial practices and, subsequently, retailers gain a disproportionate share of commercial benefits" (Maglaras et al., 2015, pp. 187-188).

Indeed, the results of this research suggest that there were two types of power holders in the chain: one that exerts economic power (potentially coercive), and another that influences the values and direction of chain members (non-coercive). Interestingly, the leader was oftentimes not the most powerful actor in the chain. Instead, they acted as the Kaumātua or elder in the chain, holding and up-keeping the shared values of members, while adding to chain identity. In an effort to mitigate the power that downstream actors hold and communicate with the final consumer, the lead firm often engaged in downstream market activities, such as in the case of value chain E, who employ brand ambassadors in-market. Based upon the findings of this research, and in reference to French and Raven (1959), it is suggested that the leader whom influences the values and direction of the chain holds *reverent power.* That is, the actor whom is viewed by others in the chain to possess characteristics that other members desire to associate with, or "…desire for such an identity" (p. 154).

This study highlighted that the leader of the chain generally exercised non-coercive power, in an effort to improve relationship satisfaction and develop trust. This is consistent with the extant literature where authors such as Leonidou, Talias, and Leonidou (2008) found that coercive power increases conflict and reduces satisfaction, while non-coercive power leads to lower conflict. Additionally, the source of power exercised by the leader is a main antecedent of trust, with non-coercive power being viewed more favourably (Jain et al., 2014; Morgan & Hunt, 1994). Hence, it is proposed:

> **P_6.** Value chains that have a lead organisation who use non-coercive sources of power achieve greater value outcomes through collective decision making, and improved relationships.

The results revealed that collaborative governance was seen as more important than contracts and incentive clauses. Hence, social normative behaviours play a large role in developing and maintaining relationships. Fischer (2013) suggests that in order for relationships to be successful they require two key things: relationship quality, and relationship stability. Relationship quality may be referred to as "… a reflection of the overall mean achievement resulting from a sequence of commercial transactions/ interactions" (p. 208). Central to this is communication, a long-term orientation, social/economic satisfaction, trust, and commitment (Jiang, Shiu, Henneberg, & Naude, 2016; Morgan & Hunt, 1994). Further, Kühne et al. (2013) suggest that the perceived relationship quality between the producer and processor is particularly important, and the better the relationship the higher the innovation capacity of the chain. This was evident in the cases whereby, chain actors had a large reliance on trust and informal relationship mechanisms, leading to the development of long-term oriented partnerships.

In contrast, relationship stability refers to "… the intertemporal fluctuations characterising these transactions/ interactions" (Fischer, 2013, p. 208). The author argues that this is reliant on behaviour and past experiences, the degree of mutual dependence, ability to resolve conflicts, and a positive history of working together over time. Therefore, it is logical to argue that by continued interactions, successful relationships develop a shared set of common goals, reciprocity, information sharing, shared risks and rewards, increase trust and commitment that allow greater alignment with value signals. Hence, it is proposed:

> **P_7.** Governance arrangements based on the collaborative protocols allow greater alignment with value signals, facilitating value creation and value capture.

Networks aim to produce value, and this is influenced by the level of collaboration both within and across organisation (Virta & Lowe, 2016). Further, in order for value chains to be successful, information sharing is necessary and this requires actors at the various stages to develop and maintain close relationships (Fischer, 2013). Participants in this study repeatedly noted the importance of information sharing, stating that it was at the core of collaborative relationships. In chains where large amounts of key information was exchanged, greater interactions took place between actors and there was a higher level of trust present, hence leading to greater value creation and co-creation efforts. However as seen in Figure 6-7, a large part of the information sharing relied on the lead firm. This suggests that when participating in network governance, the channel captain has a critical role in not only setting the direction for the chain, but also in information distribution. Hence, it is proposed:

> **P_8.** A centralised network governance structure coordinated by the channel captain promotes higher levels of information sharing, thus increasing value creation.

In line with governance was the issue of values. This was not initially predicted in the research, but the results show that it is a major enabler of network governance and is explored further in the following section.

7.3.4 **Values as Opposed to Value**

In sociology, values may be defined as the preference of certain states of existence over others (Hofstede, 1998; Rokeach, 1973). This may be conceptualised as three constructs; cultural, personal and consumption values (Lai, 1995). Cultural values are generic beliefs that a society believes to be desirable, and are ingrained in individuals through socialisation and education. Individual values are beliefs about what is desirable for the self and are adopted and modified through personal, social and cultural learning (Clawson & Vinson, 1978). Consumption values follow a means-end model where values are "…desirable end states of existence, [and] play a dominant role in guiding choice patterns" (Gutman, 1982, p. 60). In terms of values in the workplace, Rosete (2006) suggests that values have a long tradition of forming and directing behaviour both in and out of the organisation.

From a business management perspective, it is suggested that while personal values are individually held, members or groups hold values important to the organisation or clan (Flint, Woodruff, & Gardial, 1997). Over time the shared values become institutionalised and form role values (Badovick & Beatty, 1987). However, there will always be some tension between the two levels of values. Webster and Wind (1972) provide an explanation of this and label the buyer a constrained decision maker, suggesting that while an employee acts as an agent for a firm, there will inevitably be limitations upon the potential benefit to the firm, dependant on the psychological makeup of the agent. This may be explained by the purchaser's evaluation of the potential impact of a purchase decision on firm well-being and their own standing within the firm (Hawes & Barnhouse, 1987). Hence, personal values influence the purchase decision at both an individual and firm level, and while the boundary spanner acts as an agent, they exercise their own personal value judgements.

It is here that a distinction is made between concepts of values and culture. *Values* are relatively immobile and form the foundation for decision making, while *culture* is the way in which values are enacted through the processes and practices of the firm or chain (Leung & Morris, 2015). Figure 7-3 provides a conceptualisation of this whereby personal values form the foundation for firm values. The firm values then play a role in the development of relationship values. The actions of firms within the chain create a value chain culture. Hence, it is logical to assume that a cohesive value chain culture will provide greater value outcomes as there is an alignment of ideologies and actions between members.

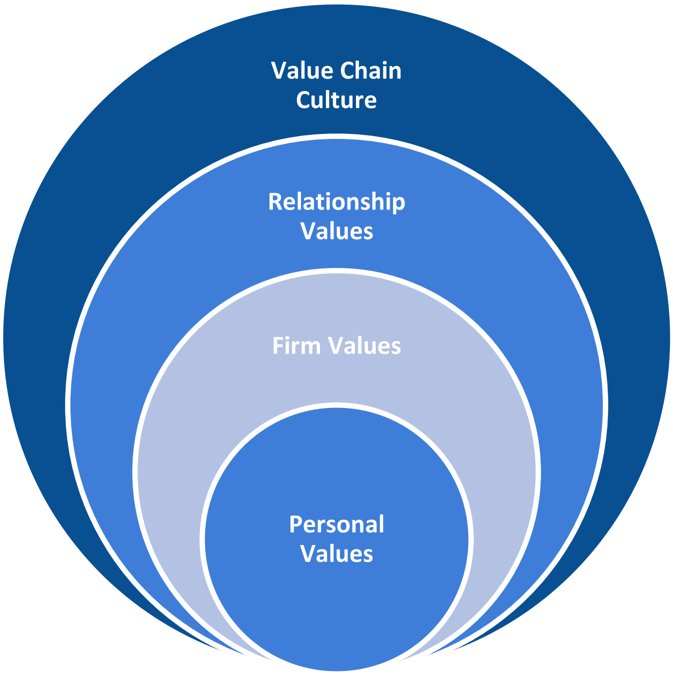

Figure 7-3 A conceptualisation of values and culture
Source: Author

In the current study, all value chains highlighted the importance of 'values' as opposed to 'value'. While value is an important driver of chain activities and economics, firms were largely concerned with developing relationships in which trust became implicit, based upon a foundation of shared values, vision, and culture. The presence of these throughout the chain, in addition to supporting incentives was crucial in ensuring alignment within the value chain and reducing frictions. Additionally, the values held by different chain actors drove land-use change. Values such as environmental sustainability, influenced the way in which actors behaved, and so the value derived from land use was a secondary consideration. This was an interesting finding given the conceptual framework used to guide the research was based upon 'value' and customer value signals. Based on this finding it is proposed:

> **P_9.** A value chain with a dominant values system that is aligned to consumer preferences generates and captures higher value.

In an effort to summarise the revised propositions for this research Table 7-2 below presents these changes. The initial $P_{1.}$ has been amended to have more of a consumer focus as highlighted in section 7.3.1, and related to this is the introduction of $P_{2.}$ that advocates for the connection of the producer to the consumer. Further, the initial proposition $P_{3.}$ suggested that network governance facilitated the alignment of incentives throughout the chain. The response received from participants and the analysis of the results suggested that central coordination acted as a more significant mechanism when promoting alignment and this is highlighted as revised proposition P_5. Based upon the obtained results, initial proposition P_8 has been altered to consider the importance of product quality in the delivery of the product offering and is shown as revised P_4. Finally initial proposition $P_{7.}$ has been removed due to a lack of evidence gathered in during the data collection phase, while revised $P_{9.}$ Is a new addition. Following this, the remainder of the chapter will discuss the contributions, limitations and future research directions of this research.

Table 7-2 A comparison of the initial and revised research propositions

Initial proposition	Revised proposition
P_1. Value creation and value capture are facilitated by a market orientation.	**P_1.** Market orientation via caring for the consumer enables ongoing systemic value creation and capture.
Not hypothesised	**P_2.** Bi-directional supply chain visibility enables the alignment of value from the consumer to the producer.
P_2. Network governance that promotes high levels of information visibility and symmetry at each level of the value chain will increase in-market value creation and capture.	**P_8.** A centralised network governance structure coordinated by the channel captain promotes higher levels of information sharing, thus increasing value creation.
P_3. The alignment of incentives through network governance will lead to better value outcomes for chain members as activities are directed towards meeting in-market demands.	**P_5.** Centralised value chains facilitate collaboration and alignment between value chain members and allows for greater value outcomes.
P_4. Value chains that have a lead organisation who use non-coercive sources of power achieve greater value outcomes through centralised decision making, and improved collaboration.	**P_6.** Value chains that have a lead organisation who use non-coercive sources of power achieve greater value outcomes through collective decision making, and improved relationships.
P_5. Network governance arrangements based on the collaborative protocols of common goals facilitate value creation and value capture.	**P_7.** Governance arrangements based on the collaborative protocols allow greater alignment with value signals, facilitating value creation and value capture.
P_6. Co-creation of value is enhanced when firms proactively seek to combine their tangible and intangible resources.	**P_3.** Value chains with a lead firm structure foster greater levels of co-creation within the value network.
P_7. Value creation and capture is maintained through resilience to both endogenous and exogenous business disruptions.	Not confirmed

P_8. A network governance structure that maintains brand control downstream to the end consumer insures the brand promise and value capture.	**P_4.** High product quality ensures the trustworthiness of the brand narrative via audits and certification.
Not hypothesised	**P_9.** A value chain with a dominant values system that is aligned to consumer preferences generates and captures higher value.

Source: Author

7.4 Research Contributions

7.4.1 Theoretical Contributions

This research began with the understanding that the global business environment has led firms to move outside of traditional firm boundaries and engage with other businesses to become more chain oriented (Mentzer et al., 2001; Min et al., 2007). This shift in doing business encompasses three key aspects: (1) a consumer centric focus; (2) integration of business processes and functions, and; (3) collaborative relationships to create and deliver value (Fawcett et al., 2007). The current study distilled this further to develop the research questions to guide this research.

This study has made several contributions to the extant literature. First is a contribution to the sparse literature on end-to-end chain governance. This research investigated five New Zealand agribusiness cases through an in-depth case methodology. The research involved interviewing participants along the different stages (tiers) of the chain in an effort to capture a system view. This approach provides a contribution as much of the extant research investigates the firm or the dyad. In particular, the data analysis identified several different governance typologies present in the sample. These typologies are different in a number of areas to much of the current chain literature, yet aligns more closely with the network research of Provan and Kenis (2008). This suggests that there is much to learn about the way that value chain structures are enacted in the business world and that the literature in this area would benefit from this and additional research.

From a theoretical perspective, this research adopted a multi-paradigm approach. This in itself is not unusual as a single meta-theory in the field of supply chain management does not currently exist, nor perhaps will it ever exist. However, perhaps unique to this research was the application of the Resource-Based View of the firm at a supply chain level. It was suggested in section 2.2.3 that supply chains vary in competences, and therefore competition is not limited specifically to firms, but extends to the system as a whole (Hunt & Davis, 2012). This study provides evidence that the unique competencies and resources deployed were able to act as isolation mechanisms that all actors in the chain benefited from. Thus, providing some empirical support for the argument that Resource-Based View can be applicable at the supply chain level.

This research was grounded in value theory, which suggests that value may be perceived as value-in-use and value-in-exchange (Gordon, 1964). One of the highlighted issues in the literature review was the lack of research that investigates how the supply chain perceives and responds to the value perceptions of the customer with regards to value creation and value capture efforts. As such, this research contributes to the ongoing discussion through the development of a number of specific value chain attributes. These attributes highlighted several ways that value chains are able to respond to consumer demands in terms of both value creation and capture efforts, and a summary of these may be found in Table 7-3.

Governance is a growing area of interest for researchers and this study provides two key contributions. First is the study of values, and specifically, this study suggests that values are a driver for value creation. Therefore, there some tension between this research and the extant literature, as the philosophy of value chain thinking places the final consumer at the center of business operations. This research revealed that while the consumer is indeed a crucial consideration, values were the main driver for the development of the product offering and also entering into, and maintaining business relationships within the context of a supply chain network.

Finally, this research contributes to the governance literature by providing evidence of the separation of power and that of leadership. This study proposes that the two terms are distinct and that each play a role in the management of a value chain. This provides a move away from the power holder in the chain being both the main behavioural influencer (channel climate) and economic power holder (policy setter). Instead, the results of this research suggest that the main influencer of the chain is the leader (not necessarily the power broker), who provides cohesion in terms of identity, values, and coordination of members. The power holder of the chain then dictates the product quality specifications and exerts influence in the contract negotiations. Hence, this research argues these are two unique roles within the chain, and that it is not necessary for these roles to be combined in one actor for value to be generated.

Table 7-3 Chain value creation and capture attributes in practice

Value Chain Attribute	Value Creation	Value Capture
Market Orientation	Market research and the development or enhancement of the product offering	Market segmentation to balance supply and demand preventing value loss through wastage and non-aligned product offerings
Information Enrichment	Information sharing fostered trust and ongoing communication, as well as up-to-date data	Technology modernisation enabled greater chain visibility and traceability, acting as an isolation mechanism to reduce counterfeit products, and confirm quality claims
Aligned Incentives	Relational factors such as trust and shared values provided a common ground for chain actors	Formal contracts set out the expectations of all parties. Risk and reward clauses acted as a risk mitigation and enabled increased returns
Channel Leadership and Integration	Coordination enables a product offering that better meets consumer demands	Alignment of leadership and power reduced frictions and improved the product offering resulted in greater value outcomes for all chain members
Value co-creation	Aided the development of dynamic capabilities and operational improvements and innovations through inter-firm learning	Allowed the identification of new opportunities, new products / markets, resulting in win-win outcomes and value capture
Risks and Risk Mitigation	Identification and action in response to weaknesses helped to improve value, such as filling gaps in-market in terms of communication with final consumer	In-built resilience and adaptability reduce the impact of shocks and disruptions preventing value loss
Values	A shared value system critical in developing relationships, brand identity, and including credence attributes in the product offering	Communication of the unique values and brand story, and product attributes improve returns for the value chain
Quality, Geographic and Time Compression	Ensured that the product offering reached the market in a timely fashion, and provided certainty that the product sold was to specification and met consumer needs	Short lead times and geographic closeness resulted in less product spoilage and lower transport and transaction costs

Source: Author

7.4.2 Managerial Implications

Much of the literature places a great deal of emphasis on organisational strategies and dyadic relationships. However, literature also recognises that globalisation, technology, and the regulatory environment forces firms to look outside of itself to the wider supply chain (Mentzer et al., 2001). This study has shown how, in a practical sense, firms are able to achieve value creation and capture in agribusiness value chains in real world business environments. The intent of understanding the value creation and value capture processes is to assist primary producers and processors to move from low to high value activities. To achieve this, it is recognised that active participation in global value chains is necessary. For managers, this will allow access to value adding activities such as customers, markets, innovation and technology at a lower cost than would otherwise occur. Hence, implementing the appropriate governance arrangements is critical for agricultural chains to increase value. Breaking out of the traditional commodity cycle, agricultural value chains aim to adopt vertical and horizontal governance arrangements that distribute authority and power to those firms well placed to act on behalf of the whole chain, not necessarily self-interestedly. Here gaining access to alternative forms inter-organisational relationships, the role of lead firms and chain governance assists in defining upgrading opportunities.

Based upon the literature review and the results analysis, this study provides two main practical contributions: (1) the identification of value attributes for value creation and value capture, and (2) identification of value creation and capture pathways for value chains. First, is the identification of several value chain attributes that are believed to be important in the governance of value chains. The final results analysis highlighted eight of these and the discussion of key findings distilled the attributes into four main areas: caring for the consumer, innovation and quality, governance (relates to value chain structure), and values. The value chain attributes can be used by managers to identify areas that could benefit from more attention. In particular, these attributes would be useful for value chain leaders to utilise when attempting to foster greater chain coordination and integration. As a consequence of this, a managerial guide has been developed and may be found in Appendix B.

Second is the recognition of pathways that chains may take in creating and capturing value. In other words, these pathways could be investigated by managers in developing supply chain strategies. Most start with a focus on their own products, insuring they have potential value-in-use both for their intermediate customers and final end consumers (Priem & Swink, 2012). In order to avoid commoditisation organisations can invest further into product innovation to differentiate their products in the market (O'Cass & Sok, 2013). This internal, product focus is depicted in Figure 7-4 in the bottom left hand corner. Two alternative routes are theorised: an opportunistic agenda, or, a collaborative co-creation pathway. Both have their relative strengths and risks and will need to be aligned to the options available to an organisation and their specific context.

If an organisation has the opportunity to develop isolation mechanisms, they can then capture more value for themselves by acquiring more of the customer's equity (Lepak et al., 2007). This will result in mainly transactional relationships with customers and limit longer term value creation (Voeth & Herbst, 2006). However, risk is minimised as control of the value adding processed is be retained by the organisation. The alternative pathway has the potential to increase the overall value created along the supply chain, but also possess its own risks. As depicted in Figure 7-4, organisations can choose to work cooperatively with their customers and suppliers via value co-creation (Aminoff & Tanskanen, 2013).

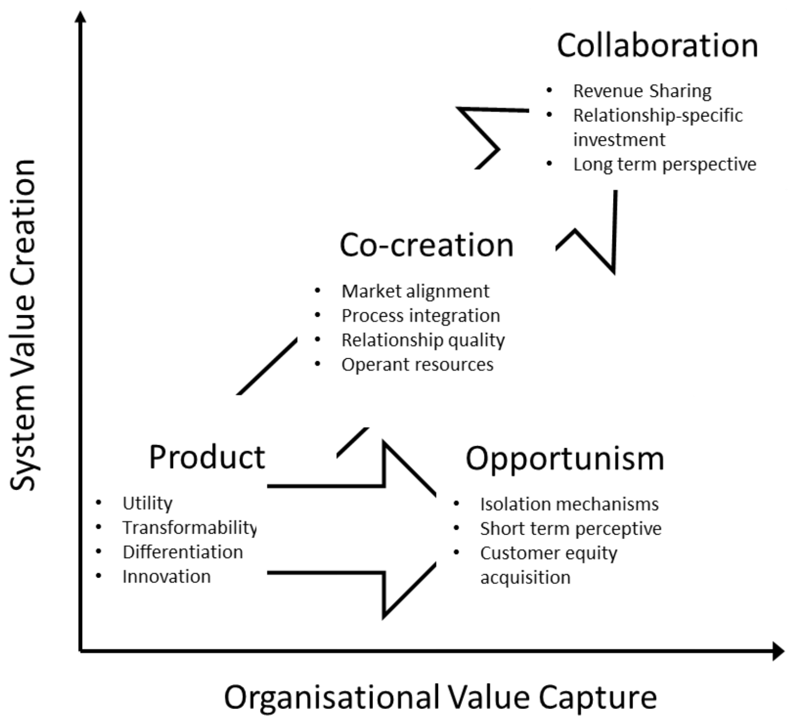

Figure 7-4 Value creation/capture pathways
Source: Author

By aligning processes with market requirements (Danese & Romano, 2004), consumer value can be enhanced and the integration of processes across interfaces can remove duplication and increases efficiency (Foerstl et al., 2013). Higher quality relationships are required to proceed in this direction as information exchange is a critical factor in joint decision making (Lindgreen & Wynstra, 2005). Moving beyond the tactical nature of co-creation, organisations have the option of developing long-term collaborations with selected partners. This can enhance value creation even further via shared resources and revenue sharing contracts (Wang & Wei, 2007). The further an organisation progresses along the collaborative route, the greater the necessity to share value more widely (Kohtamäki & Rajala, 2016). However, this naturally leads to increased risks and reliance on inter-organisational trust, as the potential for opportunistic behaviour is great. However, it is noted that value adding opportunities are limited to a large extent by the internal chain-specific dynamics and life history of the particular chain. These specifics are derived from previous path-dependent resource decisions, lead or power allocations, regulatory, network positional and technological barriers. Indeed, these barriers to upgrading for one firm may also provide protection or value capture (isolating) mechanisms for another. By utilising these barriers, managers may capture more of the value they produce.

7.4.3 Limitations and Directions for Future Research

As with any research there are limitations, and while this research has provided useful insight into the governance of value chains it is important that these are explained. One of the greatest issues of any study is the methodological decisions of the researcher. This study adopted a case study approach and as such, there are a number of methodological constraints to be considered (Yin, 2011). First is the potential for bias. It is acknowledged that deliberate selection bias (to a degree) was present in the design of this study. In general there was an effort to avoid selecting commodity chains and those dominated by high power distances and / or coercive power relationships. They key limitation of this is the generalisability of results, as the selected cases did not provide a universal population sample. However, introducing a selection bias may reduce limit extraneous variation and improve external validity to aid in theory building (Yin, 2018). This presents an opportunity for future research to investigate more population representative samples in order to further test the generalisability of results, as well as to investigate how power influences the applicability of the currently proposed attributes for value creation and capture.

In addition to selection bias, the researcher's own knowledge and experiences may influence the formulation of the interview protocol, interview process, and data analysis process (Miles et al., 2014). Therefore, there will be subjectivity present (researcher bias). This was further complicated by multiple research teams taking part in the data collection phase. This was carefully managed and several meetings were held to ensure familiarity with the interview protocol and concepts used. In an effort to improve the reliability and validity, the researcher involved other experts' at all possible stages of the data collection process, facilitated debriefing sessions, and kept open lines of communication at all times.

Another limitation was the absence of a pilot study. This meant that irrelevant, or poorly framed questions were not immediately eliminated from the interview protocols. As a result, when it came time for the interviews, some questions needed to be altered. However, as semi-structured interviews were used, the protocol was more of a guide than fixed questions as found in a survey. Further, the review of the interview protocol by experts in a pre-data gathering focus group meeting (see section 4.5) largely eliminated this issue. In addition, the researcher did not have influence over the cases selected for data collection. This research was conducted within the bounds of a larger project and so the researcher was somewhat constrained in the design. However, this was mitigated in part, by having access to additional data sources and expertise of the wider team. Despite these limitations, the study did find a range of governance structures, as well as agribusiness sectors represented, and the author believes that the case studies met the case selection criteria.

In terms of the data collected for each of the attributes, there were some limitations in the responses captured by interview participants. The first of these related to the attributes of channel leadership and integrated network governance. Despite responses being confidential, respondents were hesitant around negative conversations related to the lead firm, and conversations around the broad performance specifications within contracts. Therefore, the richness of this data was somewhat limited. However, through combining these two attributes, the researcher was able to gain a perspective into chain dynamics and some interesting data emerged. The second attribute constrained by the responses was the attribute of resilience and adaptability. While some data was collected, this was largely constrained by the sensitive nature of the subject. In many cases participants were unwilling to discuss issues around supply chain disruptions outside of general risks, and this topic was approached with great caution. Consequently, much of the data captured in regards to resilience and adaptability was the result of the overall analysis of interview responses. This dearth of data dictated the deletion of this delicate dimension, but highlights an important area for future research.

The generalisability of findings is an important issue for all research and it speaks to the trustworthiness of a study (Yin, 2018). This research examined governance attributes important to value creation and capture in value chains and this researcher believes that the attributes are generalisable to other value chains. This is because they were governance attributes that govern the overall structure of the chain, while also directing the chain activities. Therefore, it is believed that the attributes would apply to both service and good value chains. It is also acknowledged that the results themselves are not easily generalisable to other industries as they were gathered specifically within the agribusiness industry.

Chapter 2 revealed that the application of Service-Dominant Logic and the Resource-Based View to the supply chain had not been confirmed in an empirical setting. As a new and emerging paradigm, researchers propose that Service-Dominant Logic has the potential to be of use in the realm of supply chain management. While this particular paradigm was not explored within this study due to the research objectives, and to the best of this author's knowledge the paradigm has not yet been rigorously tested. Therefore, this is a potential path for further academic investigation. In terms of the RBV theory, this study has provided some support for its application at a chain level. However, as this study was exploratory in nature and further research is required to support or reject the concept's use at a chain level. It is suggested that further exploratory qualitative research takes place to understand the mechanisms of the Resource-Based View. Following this, empirical quantitative research that operationalises the mechanisms and tests the relatedness of the proposed variables using methods such as structural equation modelling and hierarchical models.

The research suggested that in general, the majority of producers were disconnected from the final consumer. Future research should further investigate the specific mechanisms through which value chains can connect the producer to consumer, and how this could increase the producer's loyalty, or sense of belonging within the chain. Value co-creation was also viewed as an important component in the ability of firms to create value. The findings of this research are relatively consistent with the findings of other studies. Therefore, it would be interesting to investigate if there is a limit to the amount of co-creation that firms are able to engage in or their willingness to do so. In other words, is there an upper limit at which firms would find it more beneficial to rearrange firm ownership and enter into strategic alliances or vertically integrate?

In terms of values, further research into the role of values and how these are propagated throughout the supply chain is warranted, and this line of enquiry would benefit from empirical testing. A first order issue would be to settle on a consistent definition of values in a supply chain setting. Researchers should resist the proliferation of definitions that has been previously seen in the formation of other important supply chain and marketing concepts. Subsequently, relevant areas to explore would be to see if relationships based on values are applicable to all types of chain structures and industries, or is it only relevant to small scale chains producing emotive products? It would also be useful to examine the limits to the applicability of values to relationships in relation to collaborative intensity and the impact of opportunism on the collaborative climate.

From a more applied research perspective, this study examined existing chains, the majority of whom were producing value added products, and two additional research areas are identified. Firstly, this research sought to investigate value chains at multiple stages. This adds to the extant literature by moving from the dyad to the chain level. However, an interesting future research avenue would be to investigate the network more fully, shifting from the chain level to the network level. It is acknowledged that this would require tightly specified network boundaries, however, research in this area would provide a valuable contribution to the supply chain literature in terms of real world behaviours.

Secondly, in terms of value chains, it would be beneficial to further investigate how new and/or commodity chains align with the propositions of this research, and to design a framework that New Zealand organisations could adopt to help further develop, or break out of the commodity cycle. A generic framework would need to be applicable across different sectors. However, this study investigated land based chains and so a closer examination of the outcomes of this research is required. Careful examination of the propositions developed as a result of this research, and their testing in other industries is needed in order to achieve this. Along this line, it would be of value to empirically test the propositions using quantitative methods. While the current research has examined those governance attributes of importance to value chains, it has not statistically tested the propositions, nor empirically tested the correlation between the attributes. Therefore, quantitative methods could fill this gap and also provide additional practical applications for a framework that would allow value chains to look at those attributes most important to facilitation of improved value creation and capture.

Finally, it is advised that further empirical testing needs to take place to investigate the governance of value chains. This is in the form of further examination of value chain archetypes. The majority of the models in the extant literature are based upon Transaction Cost Economics. However, the study by Provan and Kenis (2008) highlights alternative routes to governance frameworks. The archetypes introduced in the results of this study also show how different theoretical foundations work to explain the governance of value chains. Therefore, future research in this area should look to develop frameworks more suited to the current world of business. Through more research in this developing area, it is hoped that researchers and businesses alike may develop a deeper understanding of the phenomenon of the governance of value creation and capture within a system.

7.5 Summary

This research has addressed a current and pertinent issue in supply chain management. The investigation of extant literature and exploratory nature of the study has attempted to add to the growing literature on end-to-end chain governance and the management of organisational activities at the value chain level. The literature review highlighted some key theoretical gaps around value chain governance, and value creation and capture. To address this, a number of value chain attributes for value creation and capture were identified and a theoretical decision was developed.

The data analysis performed in this study has provided a number of contributions to the existing value chain governance literature. Notably, the research was conducted outside of the dyad, at the value chain level. This allowed an analysis of the governance of the chain as a whole, and showed a number of different typologies present. Thus, highlighting the need for more research in this area, particularly around the use of different theoretical paradigms. Further, the key role of values in the construction of value chains and inter-organisational relationships were emphasised by case participants. This was an interesting finding given the initial focus of the research, and the adoption of value chain thinking, providing a different perspective for value chain analyses' to take place.

This study has provided clear evidence that there is still a long way to go in understanding the mechanisms of value and the role that governance plays. In particular, how value chains are structured, and how they are able to be best governed to deliver value to the end consumer, while appropriating value upstream to producers. In line with this, there are a number of areas that would benefit from further study, such as the application of the Resource-Based View at the chain level, and further research of value chain archetypes utilising theoretical paradigms outside of Transaction Cost Economics. It is hoped that addressing these will further advance the supply chain literature, but also serve managers in being able to create and capture value within their respective value chain.

Appendix A

Interview Protocol

Our Land and Water National Science Challenge
Integrated Value Chains Project

Interviewer's Protocol

Preamble:
Firstly, thank you for agreeing to meet with us. This research is part of the wider National Science Challenges sponsored by the Ministry of Business, Innovation and Employment (MBIE), NZ Government. One of the key challenges within this framework is how to best manage our land and water.

The goal of the Our Land and Water Challenge is to enhance the production and productivity of New Zealand's primary sector, while maintaining and improving the quality of the country's land and water for future generations. This work we believe will have major and enduring benefits for New Zealand.

Hence, your participation is very important in trying to help us understand what it takes to get the very best out of our value chains for primary products.

Our questions will focus on the key value chain activities and relationships that exist within your own operations and your wider value chain, up to your final customers.

Confidentiality and Participation:
I would like to emphasise that anything you say will remain confidential between you and the research team. Each interview will be assigned a code and stored securely. All names and titles will be ammonised.

During this research we would like to interview your key value chain partners. We can assure you that any information, data and opinions (both positive and negative) you may express during this interview will not be transmitted or used in any subsequent interviews.

We would like to emphasise that your participation is voluntary and was ask that you feel free to decline to answer any question, or end the interview at any point without explanation.
Would you like to proceed?

Demographics (fill in prior to interview)

Interview Date: ________________________________
Informant's Name: ________________________________
Position: ________________________________
Time with value chain: ________________________________
Firm Annual Turnover (NZD): (use latest full year if available)

○ < 100k ○ 100k - 500k ○ 500k - 1M ○ 1 - 2M ○ 2 - 5M ○ 5 - 10M ○ > 10M

Firm FTE's:

○ < 5 ○ 5 - 20 ○ 20 - 50 ○ 50 - 100 ○ 100 - 200 ○ 200 - 500 ○ > 500

Warmup Question
Tell me about your current role in this value chain ______________________________

Attribute 1: Market Orientation
Key Interview Question:
- Do you receive any signals from the consumer?
- How do you get these and how do you respond?
Research Question: How do you receive information about what your final consumer's want, and how do you process this information into actions to increase returns?

Prompts:
☐ What are you doing to gather information?
☐ How important is this information to you?
☐ Does it come from the next step in the value chain, or is there an integrated information system?
☐ What have you done with the information (specific example, perhaps)?
☐ What works well in your experience? Has any of this changed over time?
☐ Are there differences in different value chains for your product?
☐ What are the barriers to action in response to market information about the final consumers?

Field Notes:

Attribute 2: Information Enriched
Key Interview Question:
- How and who do you communicate with in the value chain?
- How often do you have this communication and how good is this communication (e.g. how does it help you?)
Research Question: What technologies/sources do you use for communicating with which partners in the value chain, and allowing them to communicate with you?

Prompts:
☐ Which partners do you communicate with and why?
☐ Frequency of communications?
☐ Quality of communications?
☐ What level is the communication taking place at (e.g. between managers, or between technicians)?
☐ Communication within the firm, as well as with value chain partners?
☐ Sources: In-store reps? E-trade intelligence? Competitions or promotions? Newsletters?
☐ How do you handle commercially sensitive information or IP?
☐ How do you ensure trust in the information received and transmitted?

Field Notes:

Attribute 3: Incentive Alignment
Key Interview Question:
- What rewards (including non-financial) do you get for meeting consumer requirements? - - Has this increased/changed?
- How important are the contract clauses in shaping your behaviour?
- What benefits are not covered by contractual arrangements?

Research Question: How do your formal contracts or informal arrangements in the value chain reward partners for meeting customer expectations and values, and has this changed?

Prompts:
☐ Are the arrangements fair (compared to what other partners receive)?
☐ Can you give a specific example where you were rewarded for introducing a change that met consumer requirements?
☐ Was the reward part of a formal contract or an informal arrangement?
☐ Did it require an initial sacrifice for a long-term benefit? (key theme).
☐ How are your incentives affected by competitive pressures and regulatory requirements?
☐ How does new consumer information or new costs change the incentives of the partnerships?

Field Notes:

Attribute 4: Chanel Leadership / Power
Key Interview Question:
- Who leads the value chain?
- How do they influence you and your decisions?
- How much influence do you have over their actions?
Research Question: How are the overall policy and values of the value chain determined and enforced; who calls the shots and how is this done?

Prompts:
☐ Can you give an example where one of the partners in the value chain ultimately determined the practices or values of the chain?
☐ What was the source of their authority or power? (Legislation / coercive power / commercial strength / enabling resources / specialist knowledge / other?________)
☐ Does the channel leader influence contract clauses?
☐ What is your level of influence or power in these decisions? Is it enough?
☐ Is there a difference between the value chain's *bilateral* connections and its *overall* chain wide control mechanisms?
☐ What happens if someone does not respect the 'values' of the value chain?
☐ How is behaviour audited and poor behaviour sanctioned?

Field Notes:

Attribute 5: Integrated Network Governance
Key Interview question:
- How does the value chain work as a whole, beyond the bilateral relationships?
- Can you describe the collaborative relationship connections (not legal, but socially binding agreements) up and down the value chain?
Research Question: How are the different relationships in the value chain integrated to create a collaborative value maximising strategy? Do these social agreements help safeguard exchanges? Do they prevent opportunistic behaviours by others?

Prompts:
☐ How do you connect with value chain members other than your bilateral (next-door) partners (if you do)?
☐ Is there a coordinating body or a network group among value chain partners?
☐ How does it operate? And do you have a voice in this body?

☐ How is the balance between formal contracts and socially binding agreements arranged or managed?
☐ Describe any non-financial (e.g. new mastery, reputation, cultural values) as well as financial rewards for collaboration?
☐ How are risks shared, as well as the gains (gain-share and pain-share)?
☐ Are there sanctions applied to others who deviate from the social norms of the value chain?

Field Notes:

Attribute 6: Value Co-creation
Key Interview Question:
- What key resources (tangible and intangible) do you contribute to the value chain?
- What key resources do you need from your value chain partners?
- Who pays for R &D and Innovation and who holds the IP in this value chain?

Research Question: What do the different partners in the value chain contribute (especially intangible assets or specialist capabilities) to delivering value?

Prompts:
☐ What resources (tangible and intangible) must you provide to be part of the value chain?
☐ How dependent are you on other partners for total product value?
☐ Who delivers the innovation? and who pays for this function (of innovation, or R&D)?
☐ What types of value are embedded in the final product to consumers, and where do those different types of value come from along the chain?
☐ How do you ensure that other parts of the value chain (especially the last mile to consumer) do not cut across or destroy the value you create?

Field Notes:

Attribute 7: Resilience and Adaptability
Key interview Question:
- What are the key risks to you and your value chain? Do you have a plan to mitigate these?
- How easy is it for you to change your practices to meet changing consumer requirements and also the changing business environment?
- Can you describe any changes to land use practice in response to changing consumer requirements the business environment?

Research Question: How does each partner respond to shocks in the environment, and how does the value chain as a whole respond? How does the value chain deal with uncertainty and risks?

Prompts:
☐ Do incomplete contracts (social arrangements) allow flexibility in exchange?
☐ How are risks identified and communicated (other than market price) throughout the value chain?
☐ Do you engage in explicit risk mitigation? Can you identify a specific example where the value chain responded to a shock?
☐ What would happen if there was a major shift in consumer preferences (or perhaps regulation) for your product?
☐ Is there a specific partner in this value chain that is best placed to think about and react to risks and disruptions? (producers, processors, retailers)?
☐ How do you build in *agility* in the value chain?
☐ How easy would it be to introduce land use or land practice changes, or your management, in response?

Field Notes:

Attribute 8: Brand Ownership and Control
Key interview question:
- Do you know how the brand story is presented at retail?
- Do you have an input into how this is presented?
- Describe your input into the definition of the brand?
- Describe your equity in the brand?
- How is the brand audited?

Research Question: How do different partners influence one or more parts of the brand narrative?

Prompts:
☐ What influence or control do you have on the brand narrative – especially as it's presented to the final consumer (last mile distribution)?
☐ Are you responsible for any specific part of the brand narrative - describe?
☐ How does the brand narrative adjust to changes in market conditions (e.g. changing consumer preferences)?
☐ What is your view of the brand narrative and market profile?
☐ How is the brand authenticated through traceability mechanisms?

Feld Notes:

Concluding Remarks and Thanks
Is there anything else that you think that we should know about your value chain?

Would it be ok for us to contact you later to clarify any points?

We wish to thank you for your invaluable time and the information that you have provided. We very much appreciate your help.

[End of interview]

Appendix B

A Managerial Guide

A Manager's Guide to Value Creation and Capture in Agribusiness Supply Chains

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From Volume to Value

Private sector agribusiness and public sector policy in New Zealand are supporting a transformation in the way supply chains operate.

What does this look like?

Volume

Delivery of a commodity product to a customer, meeting agreed specifications at a fixed price

→

Value

Delivery of a quality product to the final consumer, delivering value that is shared back upstream with producers

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Context of This Guide

The eight attributes described in this guide were developed from case study research of five New Zealand value chains across the agribusiness sector.

These value chains are cases where a value-added product is produced, and value is appropriated back up the chain to producers.

34 interviews across different stages of the value chain were conducted with middle and upper management employees to ensure a chain wide view was achieved.

Information Sharing

Timely information sharing is crucial for value creation and capture - especially in FMCG chains

A global value chain from New Zealand producers to overseas consumers can be lengthy, involving several links in the chain and diverse cultures.

This means a value chain needs to work out how information about producers can be shared forwards along the chain, and how information about consumers can be shared backwards along the chain.

Producer ⟺ Processor ⟺ Manufacturer ⟺ Exporter ⟺ Importer ⟺ Retailer ⟺ Consumer

Useful tools for sharing information:

- Face-to-face meetings:
  - Conferences and workshops
  - Networking
- Everyday platforms:
  - Email
  - Telephone
  - Online conference call
- Software platforms:
  - Back-office systems (internal to firm, and online between chain partners)
  - ERP and CRM software
- Language:
  - Bi-lingual and cultural skills

A focus on Consumers

The price final consumers are willing to pay drives all value in the supply chain.

Accurate knowledge about consumers must be shared with all members of the chain to ensure that value is created and captured:

- What market segments do we target?
- What product qualities do they value?
  - Taste and other physical attributes?
  - Sustainability and other credence attributes?
- What words do they use for these qualities?
- Who are the key market influencers?
- What platforms do consumers use to purchase our product?
  - Online?
  - Physical retail stores?
  - Restaurants?

Useful tools to gather market intelligence:

- Consumer surveys
- Focus group discussions
- Taste tests
- Recording feedback on web-based platforms
- Interviewing chefs at restaurants
- Sales logs
- Trade shows
- Salespeople
- Academic publications
- Industry boards / levy groups

Aligning Incentives

Aligned incentives in the chain help to better meet consumer demands and reduce costs

A chain that adopts a market orientation needs to ensure that the product qualities valued by the end consumer are protected at each link of the chain.

This means that incentives need to be aligned with delivering these product qualities.

For example, if environmental stewardship is valued by consumers, producers, processors, distributors, and retailers must be aligned to support environmental claims made to final consumers.

Useful tools for aligning incentives:

- Contracts
  - Outcome based – price/volume/quality
  - Risk and reward sharing
- Shared values
  - Create a common purpose and joint goals
- Trust and commitment
  - Promotes long-term relationships that involve collaboration

Chain Governance

Governance determines the structure of the value chain – an important consideration

Understanding who holds the economic power in the value chain, and who drives the vision for the chain is a key component of value creation and capture efforts.

If the power holder is situated downstream in the value chain, is the brand story being effectively communicated with the end consumer? Brand awareness is particularly important for capturing premiums in-market, and also creating negotiating power with big chain actors. When the vision of the channel captain and other chain members are aligned there is less friction between actors, resulting in lower costs.

Collaboration among chain partners is important to the chain, acting as a cornerstone of trust, aligned incentives, and chain goals. When there is collaboration in a chain, partners work together to share both tangible (physical) and intangible (e.g. skills and knowledge) resources to help create a product offering that best meets the demands of the final consumer.

Key questions:

- What is the purpose for the chains existence?
- What is the culture of the chain? Is it collaborative, or self interested?
- Who are my organisation's key chain partners?
  - What sort of relationship do we have?
  - Where do we want the relationship to go in the future?
- Who decides the goals and objectives of value chain activities?
  - Do these align with my organisation's values?
- Who holds the economic power?
  - If it is another actor (such as the retailer), is there any way to mitigate this?

Value Co-creation

Value creation often requires businesses to look outside of the firm to chain partners

When new business opportunities arise for the value chain, chain actors may need to work together to create value.

For example, a retailer might identify a new opportunity that requires changed behaviour by processors, or a producer might identify an opportunity requiring different marketing by retailers.

Value co-creation might be a purposeful element of a chain (that is, intentionally designed in the governance of the chain), or it might be associative (that is, derived from day-to-day operational improvements).

Key Questions:

- What are the key resources in my firm that currently contribute to value creation?
- What resources are needed, or missing, to deliver value to the consumer?
- Who in the value chain possess these missing resources?
- How do we gain access to these? Make, buy, steal, or collaborate?
- Can our resources be recombined into new resources to create more value?
  - can these be deployed to create a resource position barrier (prevent value destruction/leakage)?

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Risk Mitigation

Value chains operate in uncertain environments and managing risk is important for value chain longevity

Risk	Mitigation Techniques
Continuity of supply	• Seeking additional suppliers and/or production areas • Contractual clauses • Innovation of production practices
Authentication / traceability	• Isotope testing • Radio-frequency identification (RFID) technology • Authorised sales platforms and retailers
Geographical constraints	• A shift from volume to value (branding) • Seek production opportunities elsewhere (e.g. production in both Northern and Southern Hemisphere)
Market dependence	• Engage in market diversification
Brand integrity	• Quality regulations • External audits • Direct communication with the end consumer • Alignment of chain core chain values and the brand story

Shared Values

Values form the basis of behaviour and value chain culture

Values help to inform behaviour both within and outside of the organisation. These are relatively immobile and form the foundation for decision making.

Having a set of organisational values aids in partner selection, and enables these to be 'built' into the product offering, whilst encouraging collaboration, co-creation and joint problem solving.

For example, a vineyard that holds te ao Māori values such as kaitiakitanga (guardianship and stewardship of natural resources) may choose to partner with a winery that holds similar values and seeks to incorporate environmental attributes into the winemaking and subsequent marketing.

Key questions:

- What are my organisations core values?
- What are my key chain partners core values?
- Do these align?
  - If not, are there other firms in the industry that might be better suited?
- How would I define the chain culture?
- What message do I wish to share with the final consumer about the product offering?
- Is this being achieved?
  - If not, are there ways to mitigate this? E.g. employees located in key markets, or partnering with distributors who hold similar values

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Product Quality

Quality is particularly important when dealing with food products, since food safety and emotional or cultural connections to food are large concerns

Ensuring product quality requires a consistency of sensory claims such as taste and size. This can be mediated through tight product specifications and quality control programs.

Quality is also influenced by supply chain design, such as geographical and time compression. Ensuring good design helps to reduce lead times and maintain product quality, particularly in terms of food spoilage.

Key questions:

- What are the product claims communicated to the final consumer?
    - Are there other product attributes that could be communicated?
    - Does every product supplied to market stand up to these claims?
    - If not, where in the chain is the issue? What quality controls could be enacted?
- Are all farmers in the chain operating best practices?
    - If not, how could this be changed? (Also see aligning incentives)
- Where are the production and processing of the chain located in relation to the end market?
    - Are these locations optimised?
    - Is it practical to shift these? If not, are there other ways to improve quality, e.g. through packaging and storage?

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